BUREAU OF EDNL. & PSYL. RESEARCH LIBRARY
55

EDUCATIONAL RESEARCH BULLETIN

86

Vol. XXXVII, No. 1

COLLEGE OF EDUCATION
THE OHIO STATE UNIVERSITY

JANUARY 8, 1958

EDUCATIONAL RESEARCH BULLETIN

(Entered in the United States Patent Office)

R. H. Eckelberry..............*Editor*
J. MacLatchy.......*Assistant Editor*

PUBLISHED BY THE BUREAU OF EDUCATIONAL RESEARCH AND SERVICE, OHIO STATE UNIVERSITY, FOR THE SCHOOLS OF OHIO. EDITORIAL AND BUSINESS OFFICES, ROOM 203, COLLEGE OF EDUCATION, COLUMBUS, OHIO

ANNUAL SUBSCRIPTION ONE DOLLAR ($1) TO PERSONS LIVING OUTSIDE OHIO

CONTENTS

Teaching Opportunities in 1957.............................. 1
Harold E. Reynard, Margaret A. Vesey, and Hazel Brown, *Bureau of Educational Research and Service*

Some Side Lights on Teacher Education.................... 11
E. J. Ashbaugh, *Miami University*

Editorial Comment.. 22

Readings... 24
Reading Improvement for Adults; Getting the Most Out of College; Les Objectifs de l'Enseignement Secondaire dans le Milieu Culturel Français de Belgique; Psychology: General, Industrial, Social; Adolescent Development in American Culture

---

The Educational Research Bulletin is published monthly except during June, July, and August. Entered as Second-Class Matter, February 9, 1922, at the Post Office at Columbus, Ohio, under the Act of August 24, 1912. Accepted for mailing at specified rates of postage provided for in Section 1103, Act of October 3, 1917, authorized February 21, 1922.

32

Educational Research Bulletin
JANUARY 8, 1958
Vol. XXXVII, No. 1

Teaching Opportunities in 1957

By HAROLD E. REYNARD, MARGARET A. VESEY, AND HAZEL BROWN

During the 1957 school year, the College of Education, Ohio State University, awarded the Bachelor's degree to 646 students. Of this number, 546 were certificated for public-school teaching in Ohio. Non-teaching degrees—degrees in fine arts, music, occupational therapy, and dental hygiene—were granted to 100 graduates. Among the certificated graduates only 410 were available for teaching. Military service, marriage, employment other than teaching, and graduate study were the major reasons given by the 136 graduates not available for teaching. Only one of the 410 graduates was unable to find a teaching position in the past year.

Table I presents several distributions of the graduates of the College of Education for the ten-year period 1948 to 1957, showing the number certificated to teach, those with non-teaching degrees, the number available for teaching, and those placed in the profession.

The number of graduates available for teaching has increased in each of the last three years. The low point is 1954 when only 246 graduates accepted teaching positions. The number of students preparing for teaching is increasing as evidenced by the figures for 1955, 1956, and 1957.

During the five-year period from 1953 to 1957 the graduates who were not available to accept teaching positions gave the reasons summarized in Table II. Several points should be noted: the number of graduates entering military service has decreased; the numbers that do not enter teaching because of marriage and the numbers of graduates certificated for teaching who select other types of employment have increased. If the continuous increase in the number of graduates entering fields other than

Bureau of Ednl. & Psyl. Research
(S. C. E. R. T.) J 911
Date ....
Acc.

teaching is indicative of a trend, the public schools will be faced with even more serious problems of teacher supply than they are currently experiencing. Also, the seriousness of this problem will mount if graduates of other teacher-education institutions correspondingly seek other employment. Although small, an increase in the number of graduates pursuing graduate study before entering teaching is shown for the past two years. There are marked decreases during 1956 and 1957 in the number who did not enter teaching because of limitations requiring specific locations. However, in spite of the seemingly large number of graduates who do not enter teaching, the possibilities for providing a larger number of teachers each year seem promising.

TABLE I

NUMBER OF GRADUATES OF THE COLLEGE OF EDUCATION AND NUMBER PLACED IN TEACHING POSITIONS EACH YEAR FROM 1948 TO 1957

Year of Graduation (1)	Graduates (2)	Certified to Teach (3)	Available to Teach (4)	Placed in Teaching Positions (5)	Granted Non-Teaching Degrees (6)
1948	638	585	400	384	98
1949	840	713	517	459	127
1950	792	660	449	377	132
1951	738	646	377	358	92
1952	607	510	295	283	97
1953	539	460	270	265	79
1954	504	387	249	246	117
1955	511	394	276	276	117
1956	610	497	365	364	113
1957	646	546	410	409	100

TABLE II

THE NUMBERS OF GRADUATES WHO GAVE THE LISTED REASONS FOR NOT BEING AVAILABLE FOR TEACHING POSITIONS FROM 1953 TO 1957

Reasons for Not Teaching (1)	1953 (2)	1954 (3)	1955 (4)	1956 (5)	1957 (6)
Graduate study	14	16	12	27	21
Military service	75	53	38	33	32
Marriage	26	14	20	37	42
Other employment	28	17	14	27	40
Specific location required	25	29	28	7	1
Other reasons	22	9	2	1	0
No data	0	0	4	0	0
Total	190	138	118	132	136

TABLE III

THE NUMBER OF MAJORS IN EACH FIELD, THE NUMBER INTERESTED IN TEACHING, AND THE PERCENTAGES SECURING POSITIONS

TEACHING FIELD	NUMBER OF MAJORS IN 1956*	TEACHING POSITIONS IN 1956		NUMBER OF MAJORS IN 1957*	TEACHING POSITIONS IN 1957	
		Number Desiring	Percentage Placed†		Number Desiring	Percentage Placed†
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Arts—						
Fine	13	9	100	19	11	100
Industrial	13	7	100	18	10	100
Business Education	16	13	100	15	11	100
Distributive Education	2	2	100	4	3	100
Elementary Education	197	168	100	216	190	100
English	31	21	100	32	20	100
Speech	7	4	100	14	10	100
Radio-Speech	7	2	100	8	5	100
Speech and Hearing Therapy	13	9	100	10	9	100
Health	0	....	....	1	1	100
Home Economics	62	38	100	66‡	43	100
Languages—						
French	7	4	100	2	2	100
German	2	1	100	0	....	....
Spanish	7	5	80	12	10	90
Mathematics	14	9	100	13	6	100
Music	48	32	100	43	30	100
Physical Education—						
Men	30	22	100	40	26	100
Women	12	5	100	10	4	100
Psychology	1	1	100	3	1	100
Science—						
Biology	23	14	100	19	12	100
Chemistry	2	2	100	2	1	100
Chem.-Physics	0	....	....	3	2	100
General Science	11	7	100	14	7	100
Physical Science	3	3	100	0	....	....
Physics	1	0	....	0	....	....
Social Studies—	41	28	100	53	39	100
History	14	8	100	14	11	100
Geography	2	1	100	0	....	....
Political Science	0	....	....	2	2	100
Special Education	0	....	....	3	2	100

* Double majors are counted in each field.

† Based on the number desiring to teach.

‡ This number includes not only graduates holding the degree B.S. in Education, but also the 64 vocational home-economics graduates from the School of Home Economics of the College of Agriculture who registered with the Division of Appointments.

THE number of graduates majoring in each field, the number interested in teaching, and the percentages securing positions for the years 1956 and 1957 are given in Table III. With the excep-

TABLE IV

Analysis of Public-School Teaching Calls Received by the Division of Appointments for the Year 1957

Subject or Teaching Field*	Number of Calls in 1957‡			Number of Times Other Specific Subjects Were Called for in Combinaton with the Subject Considered§			
	Total	As a Single Subject	Combined with Other Subjects				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Arts—							
Fine Arts (FA)	331	320	11	Eng 8	Elem 2	HE 1	....
Industrial Arts (IA)	556	518	38	Dr Ed 12	PE 10	Ma 7	GS 3
Audio-Visual Education (Aud.-V Ed)	3	3	0	....	....	....	....
Business Education (BE)	414	393	21	Eng 6	Ma 3	HE 2	La 2
Distributive Education (DE)	10	10	0	....	....	....	....
Core	62	62	0	....	....	....	....
Driver Education (Dr Ed)	71	49	22	PE 9	SS 3	Ma 3	IA 3
English (Eng)	1,048	591	457	SS 114	La 57	Sp 57	S 37
Dramatics (Dr)	7	6	1	Eng 1	....	....	....
Speech (Sp)	255	228	27	Eng 17	Dr 7	SS 3	Psy 1
Journalism (Jo)	28	18	10	Eng 5	Sp 3	Dr 1	Hist 1
Home Economics (HE)	430	400	30	Eng 12	FA 4	SS 2	PE 2
Languages (Lang)—							
French (Fr)	72	33	39	S 14	La 11	Eng 7	SS 3
German (Ger)	13	6	7	S 3	Eng 2	SS 1	Fr 1
Latin (La)	99	25	74	Eng 35	S 14	Fr 11	SS 5
Spanish (S)	112	46	66	Eng 24	Fr 15	La 11	SS 7
Total†	*296*	*110*	*186*	....	....	....	....
Library (Li)	137	115	22	Eng 13	SS 3	Fr 2	Jo 1
Mathematics (Ma)	837	513	324	GS 162	PE 27	PS 22	Eng 10
Music (Mu)	663	639	24	Eng 6	Comb 4	SS 3	Fa 2
Personnel and Guidance (P & G)	117	110	7	Eng 3	SS 1	Ma 1	Psy 1
Psychology (Psy)	66	64	2	GS 1	Elem 1	....	....
Physical Education (PE)—							
Men	310	209	101	SS 32	Comb 13	Ma 13	Dr Ed 12
Women	426	379	47	Eng 13	Hlth 10	GS 6	Ma 4

TABLE IV [*Continued*]

SUBJECT OR TEACHING FIELD*	NUMBER OF CALLS IN 1957‡			NUMBER OF TIMES OTHER SPECIFIC SUBJECTS WERE CALLED FOR IN COMBINATON WITH THE SUBJECT CONSIDERED§			
	Total	As a Single Subject	Combined with Other Subjects				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Science (Sc)—							
Biology (Bi)	97	57	40	GS 18	PE 6	Ch 4	Ma 3
Chemistry (Ch)	80	22	58	Phy 36	GS 7	Bi 6	PE 3
General Science (GS)	426	252	174	Ma 87	Ch 20	Bi 19	SS 7
Physical Science (PS)	59	44	15	Ma 9	PE 5	Bi 1	....
Physics (Phy)	51	21	30	Ch 16	GS 7	Ma 3	PE 3
Total†	*713*	*396*	*317*	....	....	....	....
Social Studies (SS)	434	325	109	Eng 30	PE 30	Ma 15	Comb 9
Special Education (SE)	294	294	0	....	....	....	....
Speech and Hearing Therapy (Sp & HT)	129	129	0	....	....	....	....
Junior and Senior High School (unclassified)	175	175	0	....	....	....	....
Elementary School (Elem)	5,197	5,197	0	....	....	....	....
Total	13,009	11,253	1,756	....	....	....	....

* In the parentheses after each subject is given the abbreviation used in Columns 5–8.

† When the calls for the subgroups for languages and for sciences are added together, the totals are set in italics and given in Column 2, but they are not included in the final total figure.

‡ Foreign calls are not included in this table.

§ Columns 5–8 show additional subjects listed on calls in Column 4. The totals of Columns 5–8 are not necessarily equivalent to the total in Column 4; the specific subjects in Columns 5–8 are the most frequent combinations.

tion of one graduate in Spanish each year, all the candidates were placed (*see* Columns 4 and 7). Although there were forty-five more persons desiring to teach in 1957 than in 1956, there was no problem in placing them. Increases in the number of persons available were evident in almost every field in 1957. In elementary education, in which the shortage of teachers is most severe, there were twenty-two more graduates available this year than last, and forty-three more than in 1955.

An examination of the numbers in Table III shows fields in which the candidates for teaching are fewer than the graduates and indicates one aspect of the inadequate supply of teachers in the areas of mathematics, chemistry, physics, women's physical education, distributive education, English, elementary, special, and business education. Shortages in these areas will continue to be a serious problem in the staffing of our schools.

An analysis of the calls for public-school teachers received by the Division of Appointments during the past year is given in Table IV. The first column lists the teaching fields for which the requests were made; the second column gives the total number of calls for each subject as a major; and the third column shows those which require teaching one subject only. Column 4 indicates the number of times requests were made which required the teaching of two or more subjects. Columns 5, 6, 7, and 8 show the minor fields requested most often with each major field. Whenever the minor fields are not specified in Columns 5, 6, 7, and 8 the abbreviation, *Comb.*, is used to indicate any subject-field combination.

The greatest demands were for English, mathematics, and science teachers. English and mathematics were the fields of greatest demand in 1956 also. Other secondary-school fields in the order of the number of calls received were: music, industrial arts, social studies, home economics, women's physical education, business education, and fine arts. Among the science fields the demand was greatest for general-science teachers. Requests for teachers of core, men's physical education, German, and physical science decreased in comparison with those in 1956; there was an increase in all other fields. Requests for language teachers were increased by 83 over those of last year with teachers of Latin and Spanish in most frequent demand.

The requests for elementary-school teachers and unclassified junior- and senior-high school teachers also are included in Table IV. The number of calls for elementary-school teachers was 288 less than the number in 1956. The number of calls for secondary-school teachers was 7,812 as compared with 5,745 during the previous year—a substantial increase. These figures do not represent the real demand for elementary- or secondary-school teachers. Many superintendents did not list their needs after Easter time, since they knew the Appointments Division had no candidates available. It was common during the year to hear superintendents report that they had great difficulty in obtaining teachers for the secondary schools.

It should be noted that foreign calls are not included in Table IV. This year the Division of Appointments received 351 requests for educational personnel from many places outside continental United States—Europe, the Far East, Near East, Middle East, and territorial possessions, Guam, Puerto Rico, and Hawaii.

DURING 1957 the Division of Appointments received 16,894 requests for personnel. Table V shows the total number of requests received during each year since 1948, and these totals are analyzed in the succeeding columns. More than twice as many requests for elementary-school, secondary-school, and college teachers were received in 1957 than in 1952, a span of only six years. The increases in the number of requests for personnel since 1952 become even more important when viewed with the tables showing the number of students graduated during this same period.

Colleges and universities face a dismal future. The proportion of students preparing for college teaching is decreasing on this campus. Evidence of a national college teacher shortage may be inferred from the numbers in Column 6 of Table V. Areas in which the demand was the greatest for college teachers were:

English	213	Business Administration	151
Critic Teaching	196	Physics	111
Psychology	181	Personnel and Guidance	109
Elementary Education	155	Secondary Education	99
Mathematics	152	Women's Physical Education	96

An accurate tally of the supply of candidates seeking college positions is not available. Candidates placed in college positions this year included a few with only the Bachelor's degree, several with the Master's degree, but the large number held the Ph.D. One fact was clearly established in relation to the level of preparation required by colleges this past year: increasingly larger numbers of colleges are employing teachers who hold only the Master's degree.

TABLE V

REQUESTS FOR PERSONNEL RECEIVED BY THE DIVISION OF APPOINTMENTS DURING THE PAST TEN YEARS

YEAR	TOTAL REQUESTS FOR ALL CLASSES OF PERSONNEL	NUMBER OF REQUESTS FOR			
		Elementary-School Teachers	Secondary-School Teachers	Educational Administrators	College Teachers
(1)	(2)	(3)	(4)	(5)	(6)
1957......	16,894	5,197	7,812	436	2,668
1956......	14,614	4,266	5,745	471	1,961
1955......	12,074	4,805	4,266	344	1,796
1954......	9,560	3,407	4,318	269	1,283
1953......	9,575	3,884	4,309	370	1,012
1952......	7,828	2,375	3,515	220	1,396
1051......	6,877	2,341	3,202	215	953
1950......	5,196	1,323	2,100	177	1,249
1949......	5,678	1,528	2,557	179	1,181
1948......	7,379	1,765	3,325	212	1,736

TO ASSESS the comparative degree of the personnel shortage in any one area with that in another area is difficult if not impossible. In educational administration, particularly in the areas of elementary- and secondary-school supervision and administration, there persists a short supply of qualified personnel. Many local and small-city school systems had difficulty in finding qualified elementary- and secondary-school principals. Current programs of cadet training and the practice of promotion within school systems have reduced the severity of this problem in larger city systems. However, it is unlikely that forthcoming demands for junior–high school principals can be met unless more school systems establish in-service administrative training programs.

The supply of one type of administrator in the last year met the demand. Consolidation of school districts into local schools administered by executive heads has released many qualified men. This new supply, in addition to the numbers of young men trained in our colleges, has met the demand for executive heads during the past year in Ohio. Requests for administrative personnel made during 1957, grouped in the categories in which these calls were received, are listed here:

Administrative Positions	Number of Calls
Superintendents or assistant superintendents	52
Public-school administrative officers (other than superintendents, principals, or executive heads)	72
Executive heads	26
Secondary-school principals or supervisors	72
Elementary-school principals or supervisors	100
College administrative officers	94
Total	436

Although the number of requests received for college administrative officers appears large, it does not accurately reflect the existing situation. Our own reservoir of men qualified for college administration is smaller than that for any other college area. An informal survey leads the writers to conclude that placement divisions in other institutions face similar shortages of qualified candidates in this category. Criteria used in the selection of college administrative officers usually include the doctorate, several years of college teaching experience, and some background of experience or training in administration.

SALARIES for beginning public-school teachers continued to improve during 1957. A general trend in this direction is evident in an analysis of the median salaries the beginning teacher has received during the last five years:

1957	$3,825	1954	$3,200
1956	$3,600	1953	$3,000
1955	$3,350		

The range of salaries accepted by beginning teachers in 1957 was from $2,250 to $4,280; only a few teachers started with less than $3,000. Credit for military service, extra pay for critical areas, and certain favored locations account for the salaries over $4,300.[1] In educational administration, the salaries ranged from $4,500 to $12,500 for those placed through our office. Salaries offered by colleges and universities ranged from $3,800 for instructors with the Master's degree to $10,500 for professors and heads of departments.

Assuming comparable education and experience, the public-schools are rewarding their teachers financially better than are the colleges. Sizable differences between the salaries of public-school teachers with a Master's degree and a few years' experience and salaries offered by most colleges for comparable training and experience will continue to intensify the teacher shortage at the college level. Such factors force many otherwise qualified individuals to seek employment other than college teaching.

---

[1] Attention is called again to Table II which shows the number of certificated teachers selecting employment other than teaching.

This placement year of the Division of Appointments ended with the heaviest demand for educational personnel in its experience and a short supply of candidates. More than half of the 16,894 requests for all types of candidates came from Ohio, a large percentage from other states, and approximately 5 per cent from foreign countries. This year the office assisted 750 candidates in securing employment in the various types of teaching and administrative positions. Of these total placements, 200 were in elementary schools, 388 in secondary schools and special fields, 113 in colleges, and 49 in administrative positions. The total 750 does not, in every case, represent direct placement by the Division of Appointments, because many of the positions were found by the candidates, themselves. The assistance from this office in these instances consisted in sending the credentials. One point is clear to us: we could have placed many more candidates in teaching and administration at both the public-school and college levels if they had been available.

It has not been difficult to find positions for our graduates in recent years. Helping a graduate find the position best suited to his interests, background, and particular needs and at the same time filling the requirements of the school community in the most effective manner are, in large measure, matters of counseling. Effectively performing this counseling function is one of the major goals of the Division of Appointments.

Some Side Lights on Teacher Education

By E. J. ASHBAUGH

THROUGH the ages there have been notable teachers—Socrates, Plato, Aristotle, Cicero, Jesus, Quintilian, St. Augustine, Erasmus, Montaigne, Comenius, and many others. These were men who somehow perceived the significance of teaching and learning, and who through inspiration, genius, and self-criticism developed great ability to arouse curiosity and to stimulate interest, to present knowledge in such a manner as to challenge effort and secure results. These men perceived that learners were not all alike and modified their teaching activity accordingly. They understood that there is real learning only where there is meaning, understanding—a relationship between the new and the old or past experiences of the learner. They realized that love and mutual respect of teacher and pupil produced an atmosphere conducive to learning, while harshness and severe punishment retarded the learning process. They formulated for themselves principles of teaching and learning which they applied successfully and learning under them became an exciting adventure, stimulating, pleasurable, wholly desirable.

Unfortunately the vast majority of teachers were not so creative. They accepted without question that telling was teaching and that their chief responsibility was to assign lessons, hear recitations, and to punish for failure to learn, as well as for innumerable acts not approved by themselves.

Apparently it was not until the sixteenth century that anyone thought of providing a school in which the significant principles developed by the great teachers would be taught to prospective teachers, where the best methods might be learned instead of each new teacher imitating what he had experienced from his own teachers however poor they might have been. In the sixteenth century, Richard Mulcaster of England conceived of the desirability of a college for the education of teachers. I have not found any such idea voiced at an earlier date. He wrote as follows:

> The Elementary school is left to the lowest and worst class of teacher, because good scholars will not abase themselves to it. The first grounding should be undertaken by the best teacher, and his reward should be the greatest, because his work demands most energy and most judgment, and competent men could easily be induced to enter

these lower ranks if they found sufficient reward were offered. It is natural enough for ignorant people to make little of the early training, when they see how little consideration is paid to it, but men of judgment know how important the foundation is, not only as regards the matter that is taught, but the manner of handling the child's intelligence which is of great moment.

. . . .

There will be some difficulty in winning a college for those who will afterwards pass to teach in the schools. There is no specializing for any profession till the student leaves the College of Philosophy from which he will go to Medicine, Law, or Divinity. This is the time also when the intending schoolmaster should begin his special training. In him there is as much learning necessary as, with all deference to their subjects, is required by any of the other three professions, especially if it be considered how much the teacher hath to do in preparing scholars for all other careers. . . . I consider therefore that in our universities, there should be a special college for the training of teachers, inasmuch as they are the instruments to make or mar the growing generation of the country and because the material of their studies is comparable to that of the greatest professions . . . wherein the forming of the mind and the exercising of the body require the most careful consideration, to say nothing of the dignity of character which should be expected from them.[1]

Here is strong logical argument for the establishment of a college for the education of elementary teachers, but there seems to be no evidence that anything came of his proposal and school keeping continued in the vicious manner portrayed by Dickens three centuries later.

THE Institute of the Brethren of the Christian Schools, founded by Jean Baptiste de la Salle in Reims in 1685, seems to have been the first training school for elementary teachers. La Salle was a very intelligent man, trained for the priesthood without taking the vows, with wide interests and sympathy, who found himself accidentally housing and advising a group of men who were trying to teach children. His own extensive education had brought him into contact with the ideas of many of the educational giants referred to earlier, and he finally founded the Institute in order to train teachers in these great basic principles which had been enunciated centuries before but which seemed to be found nowhere in practice. Later he moved his Institute to Paris that he might more effectively influence education in all of France.

---

[1] Oliphant, James [editor]. *The Educational Writings of Richard Mulcaster.* Glasgow: James Maclehose and Sons, 1903, pp. 85–86, 97–98.

The eighteenth century saw a great development in teacher education, especially in France and certain of the provinces of Germany. However, no significant action took place in England; and since America followed the English rather than the European continental pattern, the years rolled by with a minimum consideration for the training of teachers, especially elementary teachers. Their competence was determined by examinations, sometimes given by a minister (especially in New England) whose interest was too often to check orthodoxy rather than teaching ability. In the frontier settlements the examination generally was given by a member of the local school board or committee who was frequently woefully ignorant himself. The following is an example of a teacher's examination given in a northern state about the time of the Civil War. In this case the county superintendent and prospective teacher were walking across a muddy street while the examination took place:

"Now, give me the genders . . . of the following nouns. Boys."
"Masculine." . . .
"Girls."
"Feminine."
"Children."
"Common."
"Books."
"Neuter."
"You'll do. . . . Come into the county trustee's office, and I'll have your permanent license issued right away."[2]

THE first efforts at teacher training in America arose in private institutions. During the first half of the nineteenth century a number of academies responded to requests and added some teacher-training materials to their offerings. These were largely review of the common branches with some attention to methods which teachers should use in teaching them and usually a course of lectures on school organization and management. In 1823, Reverend Samuel R. Hall founded the first institution in America wholly devoted to the training of teachers, located at Concord, Vermont. It ran until he was called to Phillips Andover Academy to head a normal department there. His *Lectures on Schoolkeeping* was the first widely used textbook on education published in America, and his course on the art of teaching, given at Andover, brought school men and statesmen from all parts of the country to visit him.

---

[2] Kennedy, Millard Fillmore, and Harlow, Alvin F. *Schoolmaster of Yesterday: a Three-Generation Story*. New York: McGraw-Hill Book Company, Inc., 1940, p. 123.

In 1831, the Western Literary Institute and College of Professional Teachers was organized at Cincinnati, Ohio. This was not a college for the pre-service education of teacher candidates, but an organization of teachers in privately supported schools and academies of the area designed to give in-service training by means of frequent programs of lectures and discussions.

During this fourth decade of the nineteenth century, Western Reserve Teachers Seminary, the first training school for teachers in Ohio was established in the abandoned Mormon Temple at Kirtland. This institution under the leadership of Asa D. Lord, from 1839 to 1846, became a powerful influence in teacher education and was the spiritual parent of a number of private normal schools in the Midwest during the second half of the century. The most noted of these was the National Normal University founded at Lebanon, Ohio, in 1855 by Alfred Holbrook, who had been on the staff at Western Reserve Teachers Seminary. Two others were Ohio Northern Normal School at Ada in 1871 and Valparaiso University, Valparaiso, Indiana, in 1873. The founders of these schools were students and associates of Holbrook at Lebanon.

Parenthetically, it may be of some interest to know that the National Normal University was conceived on the Miami University campus. In August, 1855, Mr. Holbrook was invited by the teachers of southwestern Ohio to join them in forming a Southwestern Normal School Association. The meeting of the Association continued three weeks at Oxford in the buildings of Miami University. Mr. Holbrook was in charge of the professional training. Before the end of the period the enthusiasm for professional training became so great that the teachers proposed the establishment of a normal school, drafted a plan (largely the work of Mr. Holbrook), and announced their desire to communicate with any community that would furnish the necessary building and grounds to secure for itself the location of the new school. Lebanon proposed to meet the conditions, and Mr. Holbrook was elected the principal of the new normal school which formally opened November 17, 1855.

THE father of publicly supported teacher-education institutions in this country is usually thought to be Horace Mann, though James G. Carter was doubtless the most influential member of the legislature in Massachusetts and sponsored the bill to create a state board of education. Upon its passage, Mann was elected secretary of the board and immediately began making himself thoroughly familiar with education in the state. Convinced that the greatest need was better qualified elementary teachers, he proposed legislation in 1838 which resulted in the first three public normal schools in the United States. The first at Lexington opened July 3, 1839, the second at Barre on September 4, 1839, and the third at Bridgewater on September 9, 1840. During the next twenty years, eight other states established similar institutions: New York at Albany in 1844, Connecticut at New Britain in 1850, Michigan at Ypsilanti in 1852, Rhode Island at Providence in 1854, New Jersey at Trenton in 1855, Illinois at Normal in 1857, Pennsylvania at Millersville in 1859, and Minnesota at Winona in 1860. Also Massachusetts established a fourth normal school at Salem in 1854.

Thus in twenty-one years the state normal schools spread through nine states from the Atlantic to the western bank of the Mississippi, though none was so far south as Mason and Dixon's line. Great men supported the movement. Governor DeWitt Clinton and Edward Sheldon of New York; Thomas Gallaudet and Henry Barnard of Connecticut; Charles Brooks, James Carter, Horace Mann, Daniel Webster, and John Quincy Adams of Massachusetts; Calvin Stowe, Samuel Lewis, and Samuel Galloway of Ohio; and others in nearly every state sensed the significance of the movement and gave it hearty support.

OHIO is not one of the nine states which established state normal schools before the Civil War, although an effort was made at Miami University. Early in 1850, President William C. Anderson conceived the idea of a Department of English Literature which would also embrace a normal school for the state. He discussed the idea with several members of the University Board, all but one of whom endorsed the idea. Then, without formal Board action, he inserted in the *Spring Bulletin*, dated May, 1850, under "Remarks" the following:

> The Board contemplate the establishment of a Department of English Literature, which shall furnish a thorough education in English Letters and Science for those who do not desire to take the College course. This Department, too, proposes to embrace the whole Theory and Practice of Public Instruction, and thus become a Normal School for the State; and, indeed, more than an ordinary Normal School, for its members can have all the advantages of the lectures and experiments in the regular College classes. This measure will greatly extend the University's sphere of usefulness,—for until the educators of our youth are placed on an equality with what is termed "the three learned professions," our American educational scheme is incomplete.

At the regular annual meeting of the Board of August 6, 1850, President Anderson included the following comments in his report to the Board:

> In relation to a Department of English Literature, I conferred with many members of the Board, all of whom with one exception regarding it favourably. I ventured to allude to it in the remarks at the close of the circular. The measure if rightly entered into would not only extend greatly the sphere of influence and usefulness but would favourably affect the prosperity of the University. The Department ought to embrace the whole Theory and Practice of Public Instruction and thus become a Normal School for the State and it ought to furnish a thorough and extended course of instruction in English letters and in the Sciences to all that class who do not desire to take the regular College Course.
>
> And while on the subject of the Normal School I will just add that the measure of establishing one for the State will come before the Legislature at an early day. And it will not be many years until the demand for it will be so general that the grant will be made. If we could place Our University in such a State of advancement in that field as to be able to secure the Control of that Organization it would be well. With the advantages which we could offer in the form of Libraries, Apparatus, Cabinets, Edifices, etc., etc. we might enable the State to establish at small expense.[3]

The part of the president's report which referred to establishing a Department of English Literature and a Normal School was referred to a subcommittee of three who brought back a report the following day. This report reads as follows:

---

[3] *Journal of the Proceedings of the President and Trustees of the Miami University,* No. 2, 1850, pp. 404–405.

> The committee has long been persuaded that a radical defect exists in the course of instruction in every college in the United States, so far as this committee is advised, in regard to the former of these questions. That any institution calling itself an University, and teaching all the dead languages and abstruse sciences—taking youth in their tenderest and earliest years for tuition and carrying them up to the last and latest points of their lives which they can spare upon elementary and professional education, occupying a period of from seven to ten years, should nevertheless omit to instruct them in their mother tongue, is one of these extraordinary instances of the blinding effects of habit and drowsy prejudice which so completely enthralls the world. It is a state of things which we could not believe if we ourselves were not the witnesses. It is a proposition, at which we would smile on account of its utter absurdity if it had been made to ourselves as the designers and founders of a course of public and complete instruction. Our understandings, however enlightened by education, however refined from vulgar prejudices or love of popularity, would revolt at such a scheme, quite as much as the plainest and homeliest of our faculties of every day common sense. And yet because our fathers in England, who cling reverently to all the feudal ideas of the dark ages and our fathers of Colonial times as blindly imitated their Black letters bigotry, so established their Universities ages ago, do we now and here in the nineteenth century, and in the free, wild, fresh and unfeudalled West servilely follow these examples without challenging or investigating their reasonableness and propriety in the least degree.
>
> Your committee thinks that this blind acquiescence in the old system of College education has gone far enough. It is time for our college to look with our natural good sense into all the dark corners of Collegiate education. It is time that when a Scholar leaves the highest seats of learning to go out into the business or scientific or professional world, it should naturally be expected that he should be able to read audibly clearly, intelligently if not elegantly, his Mother tongue; to write at least an easy, neat and legible handwriting; to spell correctly. To know the general truths and features of geography; to keep his own or his family's or his client's Book accounts, so that his executors or persons interested may be satisfied of their faithfulness and justice; to appreciate and to express if occasion requires the beauties of Classical English Language as well as of Greek, Latin and Hebrew,—of Chaucer, Spenser, Marlowe, Shakespeare, Milton and Dryden among our

poets, of Latimer, South, Barlow, Jeremy Taylor, Bacon, Hooker and Addison of our prose writers, as well as to chase out the roots of a Greek verb or idiom and to analyze the wit or eloquence of Aristophanes, Horace, Demosthenes or Cicero. In addition to these details of things indispensable to the constitution of a complete and true education of American Youth, the committee would venture also to add that in its opinion the study of civil engineering and the use of the steam engine with the elements of drawing ought also to be added to the course.

In regard to the other subject of Normal Schools your committee begs leave to say that it heartily approves of the establishment of such a department. The committee has come to this conclusion,—

1, Because it is actually true that the business of teaching our youth which is in its nature an Art and a Profession and of a very exalted and dignified grade too, should be treated as an Art and a Profession, and that its members should be educated for their business upon the most enlightened principles.

2, Because there is no course of studies now in our University suited to that large class of students who are neither able nor willing to pursue our regular course and which might be made to educate at once teachers and farmers, mechanics or merchants.

3, Because it enables the Board to furnish means of tuition in the Department of English Literature above referred to, at the same expense to the regular classes as well as to the classes above named.

4, Because our libraries, apparatus, cabinet and lectures offer especial advantages to students in such department, incidentally.

5, Because teachers educated in such a department, when they go out and become heads of high schools will become so many "feeders" from their own schools to our and their institutions as the reservoirs of their academies, and

6, Because having these advantages, the origination of such a Department, first in our State, will turn the attention of the Legislature to our Institution in case of its making any appropriation for a State Normal School.

Your commitee in conclusion, therefore offers for passage by this board the following ordinance and resolution:

An Ordinance to Establish a Separate Department of English Education and Literature and A Normal School for the Education of Teachers.

Be it ordained by the President and Trustees of the Miami University, That there shall be and is hereby established in the Miami University, a Department for the more thorough and finished education of the Students of this institution in the English Language and Literature and for the education of Professional teachers in the whole theory and practice of instruction and that suitable proficiency in such Department of English Language and Literature be henceforth deemed an essential requisite for graduation in this University.

Resolved that Charles Anderson, Edward Woodruff and Wm. Groesbeck be appointed to a Committee to select and appoint a teacher of such Department with a salary not exceeding three hundred dollars per annum.

Student assistants if needed in the department might receive as compensation the remission of tuition and room fees.[4]

The Ordinance and Resolutions were read three times, passed, and signed by the President and Secretary on August 7, 1850.

To understand fully the reason why the Board's Committee spoke so vehemently in favor of a Department of English Literature (which really envisaged an English-science curriculum without ancient languages), a look at the College curriculum of that date is helpful. It provided—

1st year,— Greek, Latin, Ancient, Oriental, Greek and Roman History, Mathematics

2nd year,—Greek, Latin, Greek and Roman History, Greek and Roman Antiquities, Mathematics, Philosophy of Rhetoric

3rd year,— Greek, Latin, Mathematics, Natural Philosophy, Mental Philosophy, Logic, Natural History, Natural Theology, Lectures on the History of Art, Botany, Evidences of Christianity, Historical and Analytical outlines of the scope and contents of the Scriptures

4th year,— Greek, Latin, Mathematics, Chemistry, Physiology, Geology, Mineralogy, Moral Philosophy, Political Science, Political Economy, History of Modern Europe, Lectures on Roman Literature, Rhetoric, English Literature.[5]

THE new department started in November, 1850, with a tutor, John Trembly, a graduate of the previous June, since the Board's Committee which was supposed "to select and appoint a teacher" had failed to do so. Mr. Trembly served but one year and was succeeded by Darius Lyman. At the beginning of Lyman's second year, the Board passed a resolution suspending the department at the close of that year. There was evident friction between the new and the old departments of the University and Lyman resigned at the end of his third semester. A senior student in the college was put in charge. Friends of the new venture, however, seem to have become busy and the Board in June, 1853, repealed their action of the previous November, and the department (nearly all the students in this dual department seemed to be preparing to teach) continued until August, 1861, when the Board formally dispensed with the department and distributed the few students remaining among other college professors.

---

[4] *Ibid.*, pp. 406–10.

[5] *Annual Circular of Miami University, comprising The Catalogue, the Course of Studies, ect.,* [sic] *for the year 1849–50.*

Thus ended what might have placed Miami first among state universities to recognize the need of and provide for the training of elementary teachers. This effort precedes by nearly a quarter of a century the action of the State Universiy of Iowa which established the first permanent Chair of Pedagogy in 1873. Other state universities to take relatively early action were the University of Michigan in 1879, Wisconsin in 1885, and Indiana in 1886.

IN ALREADY established colleges provisions for training teachers were hampered by prejudice and organizational problems. Coeducation, an urgent need, was a most unwelcome proposal. Many women were teaching in elementary schools and needed preparation. Most of the colleges were for men only; indeed, Miami in 1855 was a man's college. Perhaps reluctance to open the university to women was the reason for the uncertain career of the normal course. The reader will recall that the private-school teachers, meeting on the Miami campus in August, 1855, became so enthusiastic about preparation for teaching that their proposal that a normal school be established eventuated in the National Normal University at Lebanon. Evidently, either these teachers did not know (which is unlikely) that a normal department had been in operation on the Miami campus for five years, or they felt that the university with its tradition of classical scholarship and restricted enrollment could not or would not provide the professional training for teaching needed by both men and women.

Another problem which the privately supported normal schools easily solved, but was wholly contrary to the tradition of the universities, was the desire and need of the unprepared teachers for short courses, given when the elementary school was not in session. The private normals solved this by offering five ten-weeks sessions or four eleven-weeks plus a six-weeks summer session each year with admission at the beginning of any term. Thus the poorly prepared teacher who felt that he could not financially afford to spend a whole year in improving his qualifications for teaching, could spend one, two, or three terms when not engaged in his regular teaching job. And remember, also, that the typical salary paid to rural teachers at that time was—men \$30 per month, women \$5 to \$7 per month.

A further problem was the background preparation of these teachers. Very few had ever attended a secondary school and still fewer were graduates. Although high-school graduation was not the rigid prerequisite for college entrance, which it has become in the present century, almost none of these teachers would have been admitted by any standard college. However, any of them could get a teaching certificate by taking an examination. It was the era when prospective teachers *took* examinations and benevolent county superintendents or boards of examiners *gave* certificates. The private normal schools of the period had no entrance requirements. Any man or woman who had a term's tuition fee (usually \$1 per week) and a desire to learn something he could use in teaching was welcomed. Literally hundreds of men who attained high positions in education and the other professions during the first half of the present century got their collegiate start in these schools.

The Ohio Secretary of State, who was *ex officio* the chief state educational officer in 1851, recognized something of the problem of poorly prepared teachers. In his report to the General Assembly in that year, he said:

> In too many counties, there are yet employed teachers who are utterly incompetent to teach even the simplest rudiments of knowledge; and this, too, through the connivance or negligence of county school examiners, whose duty it is to prevent it. In too many counties, the salaries paid to school teachers are such as would hardly secure the services of a laborer in any other calling or occupation whatever.
>
> . . . .
>
> It is respectfully suggested, that ample provision should be made for the eventual establishment of such a number of Normal schools, as time and the further progress of our school system shall seem to demand.[6]

[*Continued on page 28*]

---

[6] *Annual Report of the Secretary of State on the Condition of Common Schools to the Fiftieth General Assembly of the State of Ohio, 1851*. Columbus: S. Medary, 1852, pp. 4, 26.

Bureau of Ednl. & Psyl. Research
(S. C. E. R. T.) J 911
Date

EDITORIAL COMMENT

Necessary but Not Sufficient

All signs indicate that the launching of Sputniks I and II marked the beginning of a new phase in the development of American education. The successful launching of the satellites shocked the Government, the lay public, and the educational profession out of their complacent assumptions that we had and could easily maintain a superiority over the Soviet Union in scientific research and weapon development, and that our educational system was the best in the world.

To be sure not all people shared this complacency. For a number of years there has been growing concern in various quarters about the shortcomings of our program of science education for the better students, and increasing efforts to improve it. For example, the Science Talent Search conducted by the Science Clubs of America through Science Service is now in its seventeenth year, the Summer Institutes for Science Teachers sponsored by the National Science Foundation are now in their sixth year, and the Academic Year Institutes are in their second. Many other examples of this growing concern and increased effort could be cited.

This is all to the good. It is as certain as anything in human affairs can be that we are, and for the foreseeable future will be, living in an age dominated by science and technology. It is also clear that for a long time to come the free world, and especially the United States, will be in competition with the forces of communism for the hearts and minds of the peoples of the world. In this competition scientific research will be a major instrument. There is little doubt that in recent years we have been falling behind in the competition. These facts mean that providing more adequate training in science and mathematics for our abler students is the most urgent educational task that we face.

If we are to accomplish this task, we must make extensive changes in our educational programs. We must do a better job of identifying gifted students and providing programs in mathematics and science suited to their interests and abilities. These programs must embody much higher standards, be carried to higher levels, and be organized as growing bodies of facts, concepts, and skills over a period of years, rather than as a series of discrete units—chemistry, physics, biology; and algebra, plane geometry, and solid geometry. We must bring our teaching in science and mathematics up to date; we can no longer afford to teach nineteenth-century mathematics or science of the First World War vintage. We must develop better programs for the training of the science teachers of the future, and, even more urgently, the in-service training of present-day teachers. Programs such as those of the National Science Foundation for the upgrading of in-service teachers need to be greatly expanded.

But necessary and urgent as it is, providing better education in science and mathematics for our abler students is not sufficient. Other changes are not less important in the long run. We need more effective education in science for laymen—those who will not be scientists or technologists but who will need a thorough understanding of the nature and methods of science. Providing this is in some respects more difficult than training scientists and technologists. Another need is much better and more extensive instruction in foreign languages. In comparison with the schools of other nations of the free world and with those of the Soviet Union, ours have done pitifully little in this field. Such a policy may have been excusable in the days of nineteenth-century isolation; it cannot be defended now. We shall continue to be seriously handicapped in the world struggle until a much larger proportion of our people are proficient in foreign languages. To meet this need we shall have to expand the scope of our language instruction beyond the conventional French, German, and Spanish, and utilize the newer methods of language instruction that have proved their effectiveness. Closely related to the need for extension of improved language teaching is that for better and more sympathetic understanding of the cultures of other peoples.

These and other needs that might be mentioned add up to a large order. It would be difficult in any case to fill it. The difficulty is greatly increased by the fact that we need to do these things without impairing other educational values and achievements. We need to provide better education for the gifted without neglecting those of lesser talent. We must promote the fullest possible intellectual development of our students without neglecting their need for well-rounded growth as persons and for preparation for democratic citizenship. The educational profession will have to show statesmanship of a very high order if it is to measure up to the demands of the time.

R. H. E.

READINGS

Books to Read

LEEDY, PAUL. *Reading Improvement for Adults.* New York: McGraw-Hill Book Company, Inc., 1956. viii+456 pp.

"This book has been written for the adult who wants to learn how to read faster and with greater understanding" (page iii). It contains chapters on such topics as "Why Paragraphs," "Punctuation as Traffic Lights in Reading," "Skimming as a Key to Rapid Reading," "How to Remember What You Read," "How to Read a Newspaper," "Graphs, Maps and Charts," and others. Rate and comprehension tests are provided with each chapter so the reader supposedly can measure his increase in ability.

This is another of the practice textbooks which have been appearing frequently in recent years. It is much better than the average because it is written in a readable style. More attention than usual is given to comprehension aids. However, the book seems to value rate of reading more highly than comprehension, retention, and use of what has been learned.

All books of this type have certain limitations: The reader is promised that reading this book will result in marked improvement in reading ability. No skill can be improved this easily, particularly one as complex as reading and one that has been on a plateau for years. The author does suggest that the reader should do much outside practice, but the blurb's statement and the buyer's hope will be that this simple purchase will remedy his reading difficulties. Also the author, as do many others in the field, makes certain mistaken assumptions about the nature of reading perception. He states "as a general rule, the average book should be read with two or three fixations per line" (page 16); wheras research shows that even good readers will average five or six fixations unless they are skimming. Certain exercises are included in many of the chapters as a means of increasing the reader's perception span in reading. These consist of phrases or sentences of increasing length which the reader is to glance at quickly (looking at a center fixation point) to see how much he can perceive correctly; with continued practice he is to try to increase this amount. The assumption is that improvement here will result in increased perception span in reading, but psychological research indicates that there is little such transfer to reading. An attempt is made to combine rate and comprehension scores into a single reading-index measure (by multiplying the two and dividing by 100). The comprehension tests on each selection contain only from five to ten questions and such short tests are extremely unreliable; when this fluctuating score is multiplied by a large number (rate), marked variability can be expected in reading-index results.

F. P. ROBINSON

BENNETT, MARGARET E., AND LEWIN, MOLLY. *Getting the Most Out of College*. New York: McGraw-Hill Book Company, Inc., 1957. vii+219 pp.

This book covers a wide range of questions and problems facing students as they progress through college. It could be used as a textbook in an orientation course or as a reference book during college years. It is intimately written, directed to "you." It discusses small personal problems and the large ones, the opportunities in interpersonal relations as well as the academic associations.

The authors have emphasized the total growth of the student in the college experience. They begin with orientation and emphasize careful choice of courses, good study techniques, wise vocational planning, choice of marriage partner, civic responsibility, and developing a life philosophy. Each of these areas is developed at some length. The approach is practical and the presentation logical.

Considerable space is given to "learning about yourself" (Chapter 5). Emphasis is placed on self-study with lists of questions to be answered. These are realistic and pertinent questions at the college age. This section is an excellent one from the mental-hygiene point of view. It begins with the question, "Who am I?" (page 113) and ends with the comment, "Remember, you have a lifetime in which to grow" (page 145).

Many questions are raised throughout the book. In the chapter, "Developing a Life Philosophy" (Chapter 7), the authors summarize the kinds of choices to be made. "Your college years are full of opportunities for making choices—in the friends you make, in the courses you select, in the campus activities you enter, in the way in which you shape your vocational planning and in the tentative plans you formulate for the full pattern of years after college life" (page 189).

An extensive visual bibliography (films) is included covering such areas as: College Life and You, Study Habits and Skills, and Your Personality and Philosophy (pages 202–11). CHRISTINE Y. CONAWAY

PLANTE, GERARD. *Les Objectifs de l'Enseignement Secondaire dans le Milieu Culturel Français de Belgique*. Montreal, Quebec: Centre de Psychologie et de Pedagogie, 1954. xii+222 pp.

The author of this study holds the Master's degree in Education from Fordham University and the degree Docteur en Sciences Pedagogiques from the University of Louvain in Belgium. His doctoral dissertation serves as the contents of this book. In order to formulate the objectives of Belgian secondary education, the author solicited the opinions of educators through questionnaires and interviews, and made a careful analysis of pedagogical publications.

It is interesting to read that in Belgian educational circles there is controversy over some of the same curricular problems facing American educators, in particular, the definition and scope of general education. When asked whether general education should prepare students for life or for college, 58.8 per cent of the Belgian administrators favored preparation for life, and 27.7 per cent chose college preparation as the objective; the majority, however, would prefer multiple objectives embracing societal needs and a taste for the intellectual life. As for the skills and subject-matter that Belgian secondary-school students should acquire, the list chosen by the correspondents would appear unattainable to many American educators, especially the section which states that pupils should be able to read the works of antiquity with relative ease and should have an adequate knowledge of two modern foreign languages. Humanism occupies an important place in the curriculum of Belgian secondary schools and this is perhaps one of the major differences between their system and ours. What Belgian educators consider general education is probably closer to our conception of liberal education, as can be deduced from the following pronouncement: "On exige, toutefois, comme condition nécessaire que les matières admises se prêtent a un traitement pédagogique d'allure humaniste plutôt que professionnel" (page 96). Judging from the programs of study published by the individual Belgian high schools, the author concludes that they are "impregnated with pre-university spirit" (page 45).

The objectives of good citizenship, ability to reason, social sensitivity, a strong moral code, and others resemble closely the objectives of American secondary education. However, this reviewer would be more interested in a study of the methods and practices used by Belgian teachers to attain these objectives. In the opinion of the reviewer, the real worth of educational objectives is determined by the curricular experiences of the pupils, and this book gives no inkling of what Belgian teachers and students do to arrive at their goals. Nevertheless, the author presents a well-organized, comprehensive account of what Belgian educators consider the objectives of Belgian secondary education.

EDWARD D. ALLEN

FRASER, JOHN MUNRO. *Psychology: General, Industrial, Social.* New York: Philosophical Library, 1956. x+310 pp.

The book is designed as a textbook for a course on human relations given to business executives, and the author has been connected with the National Institute for Industrial Psychology in England.

Part I on General Psychology covers briefly the general principles that were discussed in elementary textbooks of thirty years ago and that are still sound. Probably this is all that could be done in 80 pages.

Part II on Industrial Psychology touches most of the topics ordinarily discussed under that heading and we mean "touches." With reference to selecting employees there is mention of intelligence tests, a very simple rating scale of three categories for personality, inference of certain interests and motives from qualitative observation of behavior, and the interview aimed primarily at a case history rather than observing the client in action.

All this is pretty thin and sounds as though the executive were doing his own evaluation. There is no hint of the development of systematic rating scales, personality tests, or interest inventories. It might be well to let the executive know that such instruments exist and that there are available experts who could use these instruments for him.

The discussion of industrial efficiency gives some of the conventional material on training, work methods, fatigue, monotony, accidents, and environmental factors. But industrial music rates only a single sentence. Here again a bit more of a sampling of experimental results would seem warranted.

Part III considers the social anatomy of industry with a commendable stress on communication, particularly communication upward. The author calls attention to small face-to-face groups of a dozen or less that develop unofficially and suggests that it might be possible to recognize such groups officially. The Hawthorne experiments are described in some detail. The concluding note is on adequate communication and good supervision as basic to morale.

The book has useful chapter summaries in the form of questions and answers. There are many pertinent line drawings. The style is simple, almost conversational, and reads easily. It will not scare off the executive.

It is not too clear just where the book fits into the scheme of things. Evidently it is designed for the industrial executive. If the aim is to tell him that some of his problems are psychological in character, all right. The general feeling after reading it is that something ought to be done. Maybe that is enough for British executives. Ours would say, "So what?" It would have been better to describe some psychological techniques and call attention to how an expert might handle them. The executive who is interested in what psychology can do for him would probably do better to read the pertinent chapters in almost any good book on applied psychology.

HAROLD E. BURTT

BERNARD, HAROLD W. *Adolescent Development in American Culture.* Yonkers-On-Hudson: World Book Company, 1957. xii+644 pp.

The school guidance worker will be interested in the focus of this book: "The course of human development is profoundly influenced by the culture in which individuals live; hence a basic part of the orientation for this book has to do with problems that are particularly insistent in American culture" (page 2). The author presents in easily readable style the implications from research regarding the forces which shape the direction of the maturing adolescent.

In Part One, "Basic Concepts in the Psychology of Adolescence" are presented in four chapters. In the fourth chapter entitled "Special Problems of the American Adolescent," the author discusses a variety of topics (rapid change, authority, population, technological development, mobility, and rôles) which have impact on the adolescent in the American culture.

The major forces that in the author's opinion shape the course of adolescent development are analyzed in Part 2: physical factors, place of the home, schools, social-status influences, intellectual development, and emotional factors. Based on what is known about adolescent development, guiding principles are given at key points in each chapter, for example, in the section on "adult authority and youthful independence," one of the six principles given is ". . . firmness is necessary when the whims of the adolescent conflict with the good of the family or with his own ultimate welfare" (page 184).

Focusing specifically on essential aspects of adolescence, the author in Part 3 discusses "Expansion and Integration of Interests," "Moral and Spiritual Values," "The Pathology of Adolescence," and "Socialization and Heterosexual Adjustments." Although "throughout this book an attempt has been made to take a realistic but optimistic view of the adolescent" (page 399), to this reviewer one of the best chapters is the one on "The Pathology of Adolescence"; the material discussed should help the secondary-school counselor in analyzing trends of adolescent behavior.

The relation of youth and maturity, which often receives minimal treatment in a book on adolescent development, receives adequate consideration in Part 4, "Combination of the Maturing Processes." This is based on the thought that adolescence and adulthood have overlapping areas.

Chapter bibliographies of additional reading materials and lists of audio-visual materials with study and review items combined with a general glossary and general bibliography make this a useful book. Whether one is an educational psychologist in a college or a school psychologist or counselor in a secondary school, one should profit from reading this book on adolescence by Bernard.

HERMAN J. PETERS

* * *

Some Side Lights on Teacher Education

[*Continued from page 21*]

"Suggest" and "eventual" are not words of great urgency and so although state after state provided state normal schools during the remainder of the nineteenth century, Ohio rested on such activities as teachers' institutes, private normal schools, county and local examinations—wholly academic—to improve the teacher personnel. What progress in teacher education might have been made if Miami had got a man of training and experience, vision and leadership to head its efforts at this time, one can only speculate. Instead it used a last year's graduate, a college Senior, and others without training, vision, or leadership and the effort failed.

EDUCATIONAL RESEARCH BULLETIN: ERB

Vol. XXXVII, No. 2

COLLEGE OF EDUCATION
THE OHIO STATE UNIVERSITY

FEBRUARY 12, 1958

EDUCATIONAL RESEARCH BULLETIN

(Entered in the United States Patent Office)

R. H. ECKELBERRY . . . . *Editor*
J. MACLATCHY . . . . *Assistant Editor*

PUBLISHED BY THE BUREAU OF EDUCATIONAL RESEARCH AND SERVICE, OHIO STATE UNIVERSITY, FOR THE SCHOOLS OF OHIO. EDITORIAL AND BUSINESS OFFICES, ROOM 203, COLLEGE OF EDUCATION, COLUMBUS, OHIO

ANNUAL SUBSCRIPTION ONE DOLLAR ($1) TO PERSONS LIVING OUTSIDE OHIO

CONTENTS

We Recommend More Team Research 29
HAROLD VAN WINKLE, *Bowling Green State University*

Teachers Explore Their Attitudes toward Research 31
ABRAHAM SHUMSKY, *Horace Mann-Lincoln Institute of School Experimentation, Teachers College, Columbia University*

The Relation of Format Organization to Learning 39
GEORGE R. KLARE, *Ohio University*; EMIR H. SHUFORD, *Lackland Air Force Base*; WILLIAM H. NICHOLS, *University of Illinois*

Editorial Comment 46

Readings 49
Colleges for Our Land and Time: the Land-Grant Idea in American Education; The Three R's Plus: What Today's Schools Are Trying to Do—and Why; Evaluating Student Progress in the Secondary School; The Student Teacher in Action; Education as an Industry; The Teacher's Personal Development: an Introduction of Self-Awareness and Interpersonal Relations

THE EDUCATIONAL RESEARCH BULLETIN is published monthly except during June, July, and August. Entered as Second-Class Matter, February 9, 1922, at the Post Office at Columbus, Ohio, under the Act of August 24, 1912. Accepted for mailing at specified rates of postage provided for in Section 1103, Act of October 3, 1917, authorized February 21, 1922.

Educational Research Bulletin
FEBRUARY 12, 1958
Vol. XXXVII, No. 2

We Recommend More Team Research

By HAROLD VAN WINKLE

Upon completion of a study that took 18 months and involved more than five thousand persons, the members of the research team urged me to write a report, not of our findings but of the exceptional experience we had had working as a team. There were seven of us—six graduate students at Bowling Green State University, completing requirements for Masters' degrees in education, and myself, director of the study. We started our work together by meeting for an hour and a half every day throughout the eleven weeks of summer school. At this time individual members reported on the background study they were doing, and co-operatively we planned the project and constructed instruments for collecting the data we should need.

During the school year that followed, all of us were in school work, either as teachers or administrators, but in our spare time we ran pilot studies and collected data. We met occasionally during this time; but in the following summer we went on a schedule of daily meetings again, tabulating and analyzing the data we had collected and writing a report of our findings and conclusions.

Never once throughout the entire time did enthusiasm flag. Each member of the team was a constant spur to the efforts of others. In the study of related literature, each team member covered a different aspect of the project and reported his findings in detail to the group. Planning the project and constructing the instruments were the results of the combined thinking of the group. Sharing experiences and comparing results of visits to the various school systems in gathering data provided enjoyable and thought-provoking sessions, as did the work of tabulating and analyzing the data.

The research project was a study of school-community information programs in northwest Ohio. For the study we selected by means of stratified random sampling forty-two school systems in nineteen counties. This gave each of the seven members of the team six school systems to study in detail. By this method, all team members did precisely the same kind of investigation, although no two worked in the same school system. At one time we had considered doing a study in which each member of the team would do a different aspect of one general problem—an interesting problem to try at some time in the future—but we finally decided to investigate one problem in greater depth rather than doing something with more breadth on a more general problem.

This arrangement was satisfactory to the dean of the Graduate School and to the faculty of the Department of Education, a clearance needed since the six graduate students were working for the Master of Education degree. At Bowling Green State University this is a non-thesis degree, but each candidate for the degree is required to complete a rather extensive research project.

After we had planned the project, we asked for and received a grant from the Midwest Administration Center of the University of Chicago to cover a share of our expenses. While the money we received was most helpful, we valued even more the recognition that accompanied it. We were then able to say to school superintendents whom we approached that the project was being sponsored by the Kellogg Foundation. This gave the project considerable prestige and assisted in many instances, no doubt, in our receiving much better co-operation than we would have received without it.

The results of the study have been published elesewhere.[1] This short paper is a report on the by-product of team research. We heartily recommend this method of study as one of the most effective and interesting ways known of conducting graduate research. There is no question in our minds but that group interaction provides much greater stimulus and incentive than is ordinarily found in individual research.

[*Continued on page 55*]

---

[1] "What Do Parents Say about School Taxes," *Ohio Schools*, XXXIV (April, 1956), pp. 28–29; "Older Teachers Aren't Necessarily Grumpy," *Nation's Schools*, LVIII (September, 1956), pp. 56–57 [Reprinted in *ATA Magazine* (January, 1957)]; "Lay Participation: Key to Communication," "Attitudes toward Lay Participation," and "Lay Participation in School Affairs," *Phi Delta Kappan*, XXXVIII (October, November, and December, 1956), pp. 31–32, 70–72, and 110–11; "The Crux of Parent-School Relations: Communications," *School Executive*, LXXVI (December, 1956), pp. 47–48; "Good Schools Tell Their Story," *Administrator's Notebook* (December, 1956), pages not numbered.

Teachers Explore Their Attitudes toward Research

By ABRAHAM SHUMSKY

THE purpose of this article is to report an attempt of a group of teachers—graduate students taking a course in research—to explore and understand their attitudes toward research. At the beginning of the course the instructor had said that students come to this new research experience with different feelings and expectations. At first these feelings are related mainly to the type of work that is expected. But as the course proceeds, the participants will have reactions to the type of work accomplished, the leader, and the like. These feelings are going to play an important rôle in determining the success and satisfactions of the participants.

One of the course objectives is to study and explore these feelings. Nothing was said about changing feelings for fear that such a statement would arouse the negative reaction, "He does not like my attitudes so I must hide them."

An "attitude finder" was administered to 25 students in the first session. The students were asked to use code numbers rather than their names so that a more honest picture would be forthcoming. The attitude finder attempted to explore students' reactions with regard to the following categories: their feelings of confidence in doing or reading research (Items 1-5), the importance of research to teachers (Items 6-15), and their feelings toward the research course (Items 16-17). The following is a sample test, giving only the test items:

Views Concerning Research in Education

. . . .

Directions: Next to each of the following statements are 5 choices: Strongly agree, Agree, Undecided, Disagree, Strongly disagree. Check each statement [with the phrase] which best expresses your opinion about that statement.

1. I feel adequate in reading and interpreting published research.
2. I feel fairly confident about my ability to work in a research way on the job.
3. I have a feeling of inadequacy to do a task which seems to involve the scientific approach.

4. * I do not have the temperament for research.
5. Most college graduates who have undergone training for teaching are poorly equipped to undertake any kind of research projects.
6. I think participation in research can lead to more change in the participant's school practices than his reading the research of others.
7. Research should be carried on by school people in order to improve classroom situations.
8. Research may be valuable for psychologists, but not for teachers.
9. * Research is a highly specialized activity which should only be carried on by experts.
10. Research is of little help in meeting classroom problems.
11. Doing research is too time-consuming for busy teachers to engage in.
12. Research activity on the part of the teacher is a growth-inducing enterprise.
13. Teachers should learn from the results of research studies rather than do research themselves.
14. Children at school should do research under the guidance of their teachers.
15. I see research possibilities in my work.
16. * Taking a course in research is all right for some teachers, but a waste of time for most.
17. This course provides an opportunity for work on a problem which has been bothering me.

At the completion of the test, the students were asked to react to the three starred items by writing a brief comment telling why they reacted to each as they did. When the three tests were completed, the test papers were shifted around to protect anonymity of the subjects. The group then began to analyze the results of the attitude finder.

THE various items were divided into three categories. An examination of the first category, "feelings of confidence in doing research," showed that answering "strongly agree" to Items 1 and 2 meant strong feelings of adequacy, while answering "strongly agree" to Items 3, 4, and 5 meant strong feelings of inadequacy. Consequently a scoring system to show feelings toward research was devised: very positive, 5; positive, 4; undecided, 3; negative, 2; and very negative, 1.

The responses to the category, feelings of confidence in doing or reading research (Items 1-5), scored by the system just given, were distributed as follows:

Score	Per Cent
5	20
4	45
3	18
2	13
1	4

If it is assumed that scores of 4 and 5 are indications of positive attitudes, while scores of 2 and 1 are indications of negative feelings, the results of the category show that 65 per cent of the responses are expressions of adequacy in one's ability to produce and consume research, while only 17 per cent are expressions of inadequacy.

The starred item in this category is the fourth, which reads, "I do not have the temperament for research." The limited class time did not permit a statistical analysis of the written responses to the starred items. The reading aloud of several responses (from the exchanged papers) served only as illustrations:

Positive reactions:

"I will enjoy doing research. However, it becomes frustrating when I cannot do the type of work commensurate with my ability simply because I do not have the time."

"If given a problem I consider important and the time to conduct the research, I think it will be a fruitful experience for me."

Negative reactions:

"Research involves tedious work of digging into books and requires much time. I dislike book work and have very little time or patience for it."

"My mind is occupied with other thoughts—how to live each day. I can honestly say that I am trying to do too many things outside school."

A brief class discussion summarized the results of the first category this way: The majority felt adequate in handling research, but at the same time worried about the time factor. A small minority felt inadequate. They emphasized the tedious library work, the danger of getting involved in serious work.

The responses to the category, the importance of research to teachers (Items 6-15), scored by the system devised by the group, were distributed as follows:

Score	Per Cent
5	26
4	45
3	15
2	13
1	1

The table shows that 71 per cent of the responders thought that research is practical for teachers; only 14 per cent believed that research is impractical.

The starred item in this category, "Research is a highly specialized activity which should only be carried on by experts," elicited written reactions of which the following illustrations were read to the class:

Positive reactions:

"Everyone should inquire into problems which bother him. People should not leave their every move to the experts."

Negative reactions:

"Only experts should carry on research because they are best trained for it and the layman could only rewrite the work of others."

The brief discussion that followed emphasized that the majority definitely believed that teachers could and should be researchers.

The responses to the third category, their feelings toward the research course (Items 16-17), when scored by the system devised by the group fell in the following percentages:

Score	Per Cent
5	3
4	30
3	25
2	35
1	5

Only 33 per cent of the responders, if their scoring of the test expressed their true opinions, thought that the course was worth taking; 40 per cent believed that it was not. These results struck me as being of utmost importance in terms of the exploration of the attitudes of the group to the expected research experience.

THROUGHOUT the class discussion, I looked at the evolving results of the attitude finder with dismay and wonder. My hypotheses (which were never revealed to the group) were that students felt inadequate and apprehensive in having to deal with research, and that they did not consider research a practical activity for teachers. Both of these hypotheses were not supported by the evidence. The majority of teachers expressed positive attitudes toward research. Recalling some of the off-guard expressions of previous students (such as, "I am scared stiff") made it even more difficult to understand the factors underlying these wrong predictions.

The results of the third category—the individual's attitude toward the course—only added confusion. The trend of positive attitudes revealed in the first two categories was reversed. For the first time a slight majority of the responses were expressions of negative attitudes. The perplexing question was why did the third category change the trend of positive attitudes? I decided to point out this inconsistency and confusion to the group and hear the members' interpretations.

The group itself was too engrossed in this new experience of computation of the results—because of too many trees they did not see the forest. They could not see the meanings that these figures conveyed or the questions they raised. The problem was to help them see the total picture and face its implications. The following gives the main arguments in the class discussion.

INSTRUCTOR. Let's stop to look at the results of the three categories, which are recorded on the blackboard, and see what we can learn about our attitudes toward research. The percentages of responses to the three parts of the attitude finder were:

	Positive	Negative
Category A (Items 1–5)	65	17
Category B (Items 6–15)	71	14
Category C (Items 16–17)	33	40

JOYCE. Categories A and B show positive attitudes toward research, while Category C does not. There is even a slight majority of expressions of negative attitudes.

JOHN. This is strange. Why did we react so differently to Category C?

(There was a long silence in which no one suggested any explanations.)

INSTRUCTOR. This question bothers me, too. Perhaps reading some of the written reactions to Category C will throw some light on this problem. You reacted to Item 16, which read, "Taking a course in research is all right for some teachers, but a waste of time for most." I suggest that we start with negative reactions.

(Several negative reactions were read.)

"I answered agree because I think most teachers feel that attempting to do anything new brings down the wrath of the system on their heads."

"I feel that the kind of teacher an individual will become is more or less predetermined."

"Most teachers would not think of spending valuable time on a course in research. . . . When you come right down to it, most teachers have the same basic classroom problems, and so far no one solution to any one problem was the one."

"It is largely a waste of time and only beneficial to the senior teachers."

"Enough research is done by experts, what is the use of adding to it?"

"I will not do research unless I have to."

HOWARD. These reactions say that it is dangerous to do research. One may run into trouble with the administration.

IRMA. Another emphasis is that research is really valueless, teachers are not ready to change, and research itself cannot come to any definite and concrete answers. Research is of little value especially for the beginning teacher.

RUTH. The last negative reaction read was a good expression of feelings. It said, "I don't want to do research" period! The writer even did not care to explain the reasons. I think this is the way people speak when they express real feelings.

INSTRUCTOR. Category C deals with attitudes toward the research course. What is it in the course itself that students reacted to?

LEE. The reaction was to the major requirement—the fact that each one has to produce an individual piece of research.

EDWIN. Yes, she is right. The reactions did not deal with lectures or the subject-matter to be taught.

JOYCE. When we speak about this course, we mean doing research. Remembering that it is a great investment of time and energy, obviously we tend to raise the questions whether research is valuable for us as teachers and whether as beginning teachers we feel secure in experimenting.

(It is interesting to note that Joyce's strong emphasis on the "we" and "us" encouraged other students to speak the same way.)

JOHN. But in Categories A and B these questions that you (Joyce) are raising were definitely answered. A strong majority said that they felt adequate in doing research, and an overwhelming majority claimed that research was practical for teachers. It would be interesting to read reactions from one or two papers and see these inconsistent attitudes as they are expressed by the same individual. Did they cheat?

(The members of the group laughed. I wanted to follow John's suggestion, but immediately changed my mind. The feeling was that it might create resentment in those individuals whose papers were going to be read. One is ready to take and even benefit from criticism of "inconsistency" when he is an integral part of an "inconsistent group." Being singled out, however, is embarrassing and can be even devastating.)

JOYCE. I would not like to call it cheating. First, it was anonymous and there was no reason to cheat. And second, why did they not cheat on Category C?

INSTRUCTOR. So, what would you call it?

JOYCE. I don't know. I can speak only for myself. The truth is that I have ambivalent feelings. On one hand, I am convinced that research is an important factor in promoting the cause of education. On the other hand, I approach research with much skepticism and hesitation.

BURT. Yes, our culture glorifies research. You hear it every day on the radio. "It's based on research" means "it's good and valid, buy it!" Only teachers are in a peculiar position. We cannot buy research because the findings cannot be applied to our own field situation.

HOWARD. One feels lost in trying to understand a research study. No wonder the joke says that research states what everyone knows in a language no one understands.

(Laughter.)

IRMA. A more difficult problem is that research was designed for an ideal situation. Most of us here don't have the accommodations nor the materials that the experts use.

EDWIN. It is almost like the unrealistic educational films they show of a teacher working with a committee of six pupils, and you wonder what the other thirty are doing.

INSTRUCTOR. The discussion here evolves from the difficulties in translating research findings into the language of classroom practices. Category C, however, deals with producing, rather than consuming research. Your reactions to the task of doing research should be further clarified.

BURT. Right. This only intensifies the problem. The written responses to Category C point out that in addition to questioning the usefulness of consuming or producing research, the group perceived threats in experimentation and felt anxious and insecure.

JOHN. I would like to come back to my previous question. Why is it that Category C elicits reactions different from Categories A and B? Why is it that in reacting to Categories A and B the group expresses feelings of confidence and is excited about the importance of research for teachers, while in Category C they say exactly the opposite? What is going on here?

Instructor. Looking at the wording of Category C (Items 16–17) it is seen that the central word is *course*. The word does not appear anywhere in Categories A and B.

Joyce. The word *course* is very important. It brings the problem close home. It's I, Joyce, who's taking this research course, who has to invest a great deal of work, who has faced the threats and challenges of experimentation, and who has to worry. Category C speaks about me personally.

John. What about Categories A and B? Don't they speak about you personally?

Ruth. In these categories the other set of values, the cultural expectation that research is very important, prevails. Look at Item 7 (Category B)—"Research should be carried on by school people in order to improve classroom situations." I would like to know if one could find it easy to disagree with such a statement.

Irma. But look at Item 2 (Category A)—"I feel fairly confident about my ability to work in a research way on the job." Here the *I* is emphasized. Would you say that this statement is not personal?

Joyce. No, it is not personal. I don't perceive this statement of "I feel fairly confident" in a context of a research course. Agreeing with this statement does not constitute any immediate commitment to action. However, agreeing with Category C means that I have to act now in the context of the course.

Edwin. Were we really so sophisticated in thinking about all these points in reacting to the attitude finder?

Lee. Perhaps these feelings were not verbalized, but they definitely influenced our reactions.

The analysis of the attitude finder proved to be self-revealing. The group's attitude toward research is governed by two sets of values. On one hand, the group introjects the cultural norm of the authority of research and professes allegiance to the importance of experimentation as a way of growth for the teaching profession. On the other hand, when the group members have to face the personal implications of research as consumers or producers, they experience resistance and express it in negative attitudes. In other words, many times the question is raised of whether we are ready to apply a specific research finding to our

[*Continued on page 56*]

The Relation of Format Organization to Learning

By GEORGE R. KLARE, EMIR H. SHUFORD, AND WILLIAM H. NICHOLS

THE use of heads and sideheads in a text is appraised as an aid to learning in this study. This report is the fifth in a series devoted to examining the relationships between certain factors of communication and the learning of technical training material. The variables of communication examined in the four earlier reports (2, 3, 4, 5) are:

. . . career preferences and aptitudes
. . . human interest (Flesch human interest readability formulas)
. . . style difficulty (Dale-Chall and Flesch readability formulas)
. . . patterning the text (underlining)

The text used in this study was a lesson taken from an aircraft mechanics-training course. Different versions of the lesson were prepared by changes of organization within the text. In addition, the effect of the changes of organization upon the "acceptability" of the material to subjects was investigated. It seemed likely to the writers that even though increased organization might not provide significant increases in reading efficiency or retention, it might well make the text more acceptable to the readers. The subjects were 1,175 airmen in indoctrination training at Sampson Air Force Base.[1]

"Organization" in textual material may be considered in at least two characteristic ways, as the arrangement or sequence of the ideas presented (1) and as the format arrangement (paragraphing, headings, and the like). Logically the former is prior to the latter, and also the various idea organizations may seem the more likely to be productive of differences in learning and retention. In experimental work, however, organization through variation of ideas is difficult because of the problem of determining and achieving equality of content for the various versions used, without which the results are not easy to interpret. Format organization can be more readily used because the change in

---

[1] This research was supported in part by the United States Air Force under Contract No. AF33(038)–25726, monitored by the Personnel and Training Research Center. Permission is granted for reproduction, translation, publication, use, and disposal in whole and in part by or for the United States Government. The data on which the paper is based were collected while the authors were at the University of Illinois.

content is negligible. And the tacit assumption of writers and editors has long been that improved format, as well as idea organization, makes for easier reading.

This hypothesis has been tested a number of times in related ways, dating back to 1920 at least. Germane,[2] Holmes,[3] and Washburne[4] compared reading the text guided by questions with "undirected" reading (without questions) and found an increase in comprehension scores. McClusky compared the reading speed of college students who had and who had not previously "skimmed" the summaries and headings of reading material, and found an increase.[5] Robinson and Hall compared the reading speed and comprehension of college students on various materials with and without paragraph headings, and found non-significant differences.[6] Christensen and Stordahl compared the comprehension scores of airmen on a series of 36 versions of passages in which combinations of the following were used: an outline at the beginning, a summary at the beginning, a summary at the end, underlining main points, headings in statement form, and headings in question form. No significant differences in scores were found.[7]

THE study presented here related three levels of format organization to efficiency of reading and immediate retention. The 1,206-word lesson, taken from an aircraft mechanics-training course at Chanute Air Force Base and used in this study, consisted of a first half (eight paragraphs) on the "induction system" and a second half (nine paragraphs) on the "cooling system" of an aircraft engine. The standard lesson along with two experimental forms which differed from it in level of organization were used. The low-level organization maintained only the 17 paragraph divisions, thus appearing similar to a page of the ordinary book. The Present (standard) level of organization contained two major sideheads (for the two halves of the lesson), one general run-in heading, and five run-in headings immediately preceding indented blocks of related paragraphs. The high-level organization maintained the features of the Present but provided run-in headings for all paragraphs. Because of the changes made, the text of low-level organization contained 1,206 words, that of the present-level 1,229, and that of the high-level 1,255.

---

[2] Germane, Charles E. "The Value of the Controlled Mental Summary as a Method of Studying," *School and Society*, XII (December 11, 1920), pp. 591–93.

[3] Holmes, Eleanor. "Reading Guided by Questions versus Careful Reading and Rereading without Questions," *School Review*, XXXIX (May, 1931), pp. 361–71.

[4] Washburne, John N. "The Use of Questions in Social Science Material," *Journal of Educational Psychology*, XX (May, 1929), pp. 321–59.

[5] McClusky, Howard Yale. "An Experiment on the Influence of Preliminary Skimming on Reading," *Journal of Educational Psychology*, XXV (October, 1934), pp. 521–29.

[6] Robinson, Francis P., and Hall, Prudence. "Studies of Higher-Level Reading Abilities," *Journal of Educational Psychology*, XXXII (April, 1941), pp. 241–52.

[7] Christensen, C. M., and Stordahl, K. E. "The Effect of Organizational Aids on Comprehension and Retention," *Journal of Educational Psychology*, XLVI (February, 1955), pp. 65–74.

Nine versions were used in the study. Three were called "unsplit," treating both halves of the lesson in the same way; these were termed *P*, for Present; *A*, for high-level organization; and *B*, for low-level organization. Six versions were called "split," treating the two halves of the lesson with a different level of organization; these were *AP* (first half *A* level, second half *P* level), *PA*, *AB*, *BA*, *BP*, and *PB*. All versions were cast in the same format except for the indicated differences. The identifying letters just given were printed in the upper right-hand corner of each first page.

Every fifth line of each version was numbered in order to obtain the number of words read by the subjects. During the experimental period the subjects recorded a code letter to indicate each complete reading and the time spent in its completion, as well as the number of the last line read when asked to stop reading.

A multiple-choice test comprising 50 items was used to measure immediate retention. The items were selected from a pool of 112 items in such a way that each paragraph of the reading material was allotted a percentage of items proportional to its size. The split-half reliability of the test was .87.

Acceptability (pleasantness to the reader) of the various split versions was determined on the basis of questions which appeared on the answer sheets for the test. The first question asked whether the subject noticed a difference in the way the two halves of the lesson were organized (he was asked *not* to answer in terms of content). The subjects who noticed a difference were asked which half of the material they thought "more pleasant to read," and were then asked to indicate why they made this choice. This was done by checking among the following possible choices all reasons felt to be important and double-checking the most important one: "Is more familiar to me," "Is more interesting to me," "Makes it easier for me to understand," and "Makes it possible to read faster."

The 1,175 airmen were divided into groups: (106 subjects took version *AB* and *BA*, 107 each of the other versions). Various aptitude indexes were obtained for all airmen, based on the Airman Classification Test Battery.

The subjects were given 25 minutes to read the lesson, and during that period indicated the amount read in the way already described. The acceptability questions were then answered and, following this, 40 minutes were allowed for answering the test.

THE least time was required for a first reading of the *B* (low-level organization and shortest) version, and the most time for a first reading of the *A* (high-level organization and longest version). The differences were small and were not significant. Subjects who had the *B* version read the largest number of words, and those who had the *P* version, the smallest. Again the differences were small and were not significant.

Eighty-five per cent of the subjects answered "yes" to the first question regarding whether or not they noticed a difference in the way the first and second halves of the material were organized. Earlier reports of the study (3, 4, 5) had shown that such a judgment between halves of versions, presumably made on the basis of structural differences (in this case, organizational), may actually reflect content differences as well. A check was made on the effect of content in influencing judgments by comparing the percentage of subjects preferring the first to that preferring the second halves for all versions taken together (regardless of organization). It was found that the percentage preferring the second half (69 per cent) was significantly greater than that preferring the first half (31 per cent), the critical ratio being 7.69 ($p < .01$).

A further analysis was made to determine whether organization had any effect upon judgments irrespective of the greater effect of content. A 6×2 (split versions × preferred halves) contingency table yielded a Chi-square of 20.08 ($p < .01$), showing that organization did have an effect on judgments.

Because split versions were used, it was possible to equate for content in the analysis of the effects of organization upon preferences in the following manner. The relative preference for the high level (*A*) *versus* the low level (*B*) of organization was determined by totaling the percentage of subjects preferring *A* in the *AB* version with that of subjects preferring *A* in the *BA* version, and then comparing this figure to the total preferring *B* (determined in the same way). The same kind of comparison was made for the *AP* and *PA* and for the *PB* and *BP* versions. The order of preference was *A* (high level), *P* (intermediate), and *B* (low level). The differences between *A* and *B* and between *P* and *B* were significant (the critical ratios were 2.46 and 1.99, respectively, $.05 < p < .01$); the difference between *A* and *P*, while favoring the former, was not significant (C.R. = 1.07, $p > .05$).

Analysis of the reasons given for the expressed preferences showed that "ease" was ranked a strong first, "interest" was second, "speed" an only slightly weaker third, and "familiarity" last.

TABLE I

ANALYSIS OF VARIANCE BASED UPON IMMEDIATE RETENTION TEST SCORES FOR THREE UNSPLIT ORGANIZATION VERSIONS (*A*, *P*, AND *B*)

Source of Variation (1)	*df* (2)	Mean Square (3)	*F* (4)
Versions	2	25.58	....
Aptitude indexes	7	1,925.13	51.75*
Interaction	14	78.30	2.10†
Within	258	37.20	....
Total	281	....	....

† $.05 > p > .01$ ($F_{.01}$ for 14 and 200 *d.f.* = 2.17)
* $.01 > p > .001$

A PREVIOUS study (2) had shown that subjects' mechanical aptitude indexes (stanine scores) correlated in the neighborhood of +.75 or higher with scores on the immediate retention test used in this and previous studies, and that this factor should be considered in the analysis of these data even though random samples of the subjects differed only slightly in average index scores. Samples of 94 subjects were therefore randomly selected for all unsplit versions in order to increase the precision of the experimental design and provide proportionality of aptitude indexes. Mean immediate retention scores were 28.23 for *A*, 27.59 for *P*, and 27.20 for *B*. A 3 × 8 (versions × mechanical aptitude indexes) analysis of variance was computed on these data and is presented in Table I. The figures show that the variance attributable to aptitude indexes and to interaction was significant, while that attributable to versions was not. The significant interaction effect appeared due to individuals of high ability getting *higher* scores and those of low ability getting *lower* scores for the *A* version than subjects of similar abilities for the *P* and *B* versions.

The retention-score means for the split versions were in the same rank order with respect to the three levels of organization as those for the unsplit versions. Further analyses of the data for the split versions also generally confirmed those for the unsplit.

PREVIOUS studies on the effect of changes in format and related aspects of organization upon reading efficiency, comprehension, and retention have yielded largely negative results. While reading guided by questions (*versus* unguided reading) appears to increase comprehension (Germane, Holmes, and Washburne), it has been argued that results with this technique are of doubtful value because the questions have been largely the same as, or closely related to, those used in studying comprehension itself. The more recent study of Christensen and Stordahl showed no gain in comprehension with headings in question form. It seems probable, further, that mere presence of headings, in any form, *versus* their absence has no readily demonstrable effect upon reading speed, as Robinson and Hall found and as the present study indicates, at least unless the reader skims them before a more thorough reading (McClusky).

The study described here does show a definite increase in reader acceptability (pleasantness) for more highly organized as compared to less highly organized material. It would seem that degree of acceptability is potentially of greatest importance when reading is more or less voluntary, as it commonly is, but as it is not in an experimental situation, since the reader may read less of the material or none at all if it is too unacceptably presented. The question of whether or not the addition of headings increases immediate retention (comprehension) still remains. This study, in contrast to those of Robinson and Hall and of Christensen and Stordahl, provides a qualified affirmative answer (in the sense that the more able subjects showed a gain). It seems possible to the writers that the highly technical, and therefore complex, nature of the material used here may at least partially account for this; the subject-matter was clearly more technical than that used in the previous studies. This notion gains credence from a consideration of the different types of material readers may encounter. Fiction, the least technical type, is least likely to have headings; the same is true for light nonfiction. As the material becomes more complex, and especially as it reaches the rather technical level of the college textbook, headings become more common. In other words, the results of this study seem to be in general agreement with the approach that writers have come to adopt over the years on empirical grounds.

THE study presented here was an attempt to relate three levels of "format organization" (chiefly larger *versus* smaller numbers of headings) to efficiency of reading, acceptablity, and immediate retention of technical training material. The effect of higher *versus* lower levels of organization upon reading efficiency (speed of reading) was not significant, but the differences in acceptability significantly favored the higher levels. The immediate retention test scores also favored the higher levels of organization, but the only significant difference appeared as an interaction effect with aptitude.

BIBLIOGRAPHY

1. KLARE, GEORGE R., AND BUCK, BYRON. *Know Your Reader: the Scientific Approach to Readability.* New York: Hermitage House, 1954, pp. 115–16.
2. KLARE, G. R.; GUSTAFSON, L. M.; MABRY, J. E.; AND SHUFORD, E. H. "The Relationship of Immediate Retention of Technical Training Material to Career Preferences and Aptitudes," *Journal of Educational Psychology*, XLVI (October, 1955), pp. 321–29.
3. KLARE, GEORGE R.; MABRY, JAMES E.; AND GUSTAFSON, LEVARL M. "The Relationship of Human Interest to Immediate Retention and to Acceptability of Technical Material," *Journal of Applied Psychology*, XXXIX (April, 1955), pp. 92–95.
4. KLARE, GEORGE R.; MABRY, JAMES E.; AND GUSTAFSON, LEVARL M. "The Relationship of Patterning (Underlining) to Immediate Retention and to Acceptability of Technical Material," *Journal of Applied Psychology*, XXXIX (February, 1955), pp. 40–42.
5. KLARE, GEORGE R.; MABRY, JAMES E.; AND GUSTAFSON, LEVARL M. "The Relationship of Style Difficulty to Immediate Retention and to Acceptability of Technical Material," *Journal of Educational Psychology*, XLVI May, 1955), pp. 287–95.

EDITORIAL COMMENT

Civilizing Young Savages

The recent outbreak of violence in certain secondary schools in New York City has focused attention again on the complex and difficult problem of juvenile delinquency. Since the city does not have enough well-trained regular teachers, guidance officers, special schools, probation officers, and correctional facilities to care for and rehabilitate the troublemakers, the Board of Education faced a difficult choice: it could keep the troublesome few in school and thus jeopardize the welfare of others, or it could suspend them from school and turn them into the street. It chose the latter alternative.

The trouble, of course, is not endemic to New York: it afflicts many communities. It is merely more virulent at the moment in that city; in fact, so serious that we can expect exceptionally vigorous effort to cope with it there—an effort that is long overdue. Since the situation has deteriorated so far and the task of providing adequate personnel and facilities is so great, it will take time to bring the more serious symptoms under control, and much longer to deal adequately with the causes of the trouble.

The New York situation presents not merely a school problem but one that is broadly social. Most of the offenders come from depressed and slum neighborhoods and from homes characterized by poverty, overcrowding, adult delinquency, and divorce. There is good reason to believe that, if proper means are available and sufficient effort is made, three-fourths or more of the offenders can be reformed into good citizens, but the effort, time, and money required will be tremendous. It will require leadership of a high order to correct the present situation and prevent similar occurrences in the future.

In most discussions of the delinquency problem in general and the New York situation in particular that this writer has seen, one important consideration has been overlooked. It has to do with the long-range history of *genus homo* and the kind of culture to which its members are adapted. Human beings have spent more than 95 per cent of their time on the earth as food gatherers and hunters rather than as food raisers. It was only about eight thousand years ago that man began to raise crops and thus moved into the agricultural age. Our biological evolution was practically complete by that time: very little change has taken place in the brief ensuing period. In other words, we are biologically and psychologically adapted to the life of the cave man. A genuine appreciation of this tremendous fact throws a flood of light on many of our problems in health, education, government, recreation, criminology, and other areas. This is indeed one of the most important generalizations that can be made with respect to human history.

For most people in the world the agricultural age lasted until our own time. For the people of Western Europe and the lands settled by them, a second great change in human living began about two hundred years ago—a mere moment in the history of the species. This was the coming of the machine age, which got under way in England in the latter part of the eighteenth century, spread rapidly to other Western countries, and is now affecting other parts of the world. The most extensive development has occurred in the United States and Europe.

It is impossible to exaggerate the importance of the change in human living brought about by the machine age. Without effecting any fundamental change in the human animal, it has forced him to live in a world of cities, assembly lines, traffic laws, sedentary jobs, hard pavements, and time clocks. The basic work of educational organizations, including families, churches, schools, youth organizations, and summer camps is that of helping young people develop the understandings, attitudes, habits, and skills that will enable them to live happily and successfully in their highly industrialized and urbanized world. In short, the teachers and others are trying to civilize young savages. Since their job is so complex and difficult, it is no wonder they do not always succeed.

It would take a good-sized book to explore all the aspects of the incompatibility between the inherited characteristics of our children and the conditions of the machine world in which they have to live. Only one aspect can be mentioned here. In the food-gathering era in which the human animal developed and in the agrarian era that followed, children from a comparatively early age had a substantial amount of work to do. As late as the middle of the nineteenth century the average farm boy or girl in America was expected from the age of ten or twelve to do enough work to "earn his keep," that is, contribute as much to the family income as he consumed. Soon, he was contributing more than he consumed, thus helping support the younger members of the family.

For urban young people today, and especially for boys, there is little opportunity to work. Chores have all but disappeared and jobs are hard to get. Thus a major educational instrumentality has largely disappeared for the 85 per cent or more of our people who live under urban or semiurban conditions. And we have not found any satisfactory substitute for it.

What does this mean for dealing with juvenile delinquency in New York and elsewhere? It means that this delinquency is to be explained, not only on the basis of poverty, broken homes, and depressed neighborhoods, but in considerable part on the basis of lack of opportunity for work experience. It means that we must take more seriously the job of identifying potential delinquents and providing proper educational programs for them. It means a revision of conventional ideas and practices with respect to child labor and compulsory school attendance. In New York, all children are required to attend school to age seventeen or until graduation from high school. They must attend full time to age sixteen, when they may with parental consent be released on employment certificates; but if so released, they must attend continuation school until seventeen. There is little doubt that many of the troublemakers in New York would have been better off if, at the age of twelve or fourteen, they had been removed from school and placed in work-and-education camps. They would have accomplished at least as much "book learning" and almost certainly would be better educated, that is, better prepared for good citizenship and satisfying personal living. Moreover, they would not have been a hindrance to the education of other pupils.

The facts of human history set forth briefly in the preceding paragraphs have implications that go far beyond the matter of juvenile delinquency. Not only the 945 pupils who have been dismissed from the New York schools, not only the estimated ninety-five hundred "hard-core delinquents" in these schools, but also the normal pupils need work experience. Developing ways of providing it as an integral part of growing up in the machine

[*Continued on page 56*]

READINGS

Eddy, Edward Danforth, Jr. *Colleges for Our Land and Time: the Land-Grant Idea in American Education.* New York: Harper and Brothers, 1957. xvi + 328 pp.

In 1955 the land-grant colleges and universities in the United States enrolled more than one-fifth of all students in degree-granting institutions and awarded two-fifths of all Doctors' degrees granted in the United States. The history of the sixty-nine institutions that were created through Federal aid in an effort to serve more directly the needs of farmers, mechanics, and other workers is indeed interesting. Mr. Eddy has clearly revealed the extent and variety of contributions of these colleges and universities since the Land-Grant Act was passed by Congress and signed by President Lincoln in 1862.

The dissatisfaction of many people with the cloistered activities of the early nineteenth-century colleges is outlined in the citation of the report of Francis Wayland to the Brown University Corporation, regarding the declining enrollments in Brown University. Wayland said:

> Our colleges are not filled, because we do not furnish the education desired by the people. . . . We have produced an article for which the demand is diminishing. We sell it at less than cost, and the deficiency is made up by charity. We give it away, and still the demand diminishes (page 8).

Efforts to provide agricultural schools and colleges and schools for workers were made by various people as early as 1754. During the early part of the nineteenth century, several agricultural colleges were started, but none lasted long. For many years, efforts were made to provide for colleges through Federal grants. Jonathan Turner in Illinois and Congressman Justin Smith Morrill from Vermont were especially active in promoting these programs. Morrill succeeded in getting the Land-Grant Bill passed in 1862, after suffering a veto of a similar bill in 1859. The law provided for funds for expenditure by the legislature of each state for such purposes as

> . . . the endowment, support, and maintenance of at least one college where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the legislatures of the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life (page 33).

Those in charge of the early land-grant colleges had tremendous difficulties. The sheer problems of developing a new kind of educational institution with the focus upon practical learning were overwhelming. Even the farmers were dissatisfied with the program. Churches objected to the non-sectarian institutions; the Army was not interested in the military-training provision; staff members for the new institutions were scarce and inexperienced; facilities were meager; and efforts to provide for manual-work experience at the college for each student were seldom successful.

Over the years the land-grant college programs spread from limited teaching of agriculture, mechanic arts, and home economics to veterinary medicine, liberal arts, graduate study, and activities in extension and other adult-education programs. Additional support from the Federal Government brought about experiment stations and expanded activities in research. Concern for the building of effective liberal-arts and general-education programs became increasingly evident as the institutions developed into large colleges or universities.

In the very interesting chapter on the Negro land-grant colleges, the relatively small emphasis given to Negro higher education through land-grant funds before 1890 is noted. In 1890 new legislation specifically provided for Negro higher education through land-grant funds, thus making possible the initiation or improvement of programs for the seventeen Negro land-grant colleges. The author points out that the development in these instances has been slower than that of the other land-grant colleges, although the changes of these Negro colleges have been accelerated in recent years. Implications of integration laws for the Negro land-grant institutions are pointed out. In fact, in West Virginia, where integration of state-supported higher education is in effect, the land-grant function of West Virginia State College (a former Negro land-grant college) has been transferred to the University of West Virginia, since the date of publication of this book.

In his final chapter, the author clearly presents a philosophy of the land-grant institutions. He notes that "the traditional aim of land-grant education has been a two-fold concern for the development of society and for the development of the individual to serve society" (page 280).

This reviewer found the book interesting and informative. It overlaps Earle D. Ross's earlier book, *Democracy's College*, but supplements it in many ways, not only in terms of the calendar but in terms of phases of the land-grant movement. A large amount of data regarding some individual colleges is included.

EARL W. ANDERSON

BECK, ROBERT H., editor. *The Three R's Plus: What Today's Schools Are Trying to Do—and Why*. Minneapolis, Minnesota: University of Minnesota Press, 1956. x+392 pp.

This book has been written to make available to parents and other citizens interested in the pros and cons of modern education a description of just what today's schools and today's teachers are trying to do —and why. We . . . have learned . . . that such a description is needed if discussion of the schools is not to degenerate into emotional, ill informed argument (page v).

The reviewer was pleased to find a carefully prepared explanation (defense) of modern elementary- and secondary-school practice written by university professors. Twenty-six of the thirty-one authors are members of the University of Minnesota faculty; four contributors are engaged in public-school work in Minneapolis or St. Paul; one author is on the faculty of the University of California at Berkeley.

The large number of independent essays, each focusing on a particular problem or area in education, results in a somewhat annoying amount of repetition concerning underlying purposes of education. The book does, however, hold together remarkably well in its three major divisions.

Section I (Changed and Changing Conceptions) provides a good overview of changes which have occurred in the past twenty-five years (since present parents were enrolled in elementary and secondary schools). The chapter on "Individual Differences and the Curriculum" by Walter W. Cook is particularly thought-provoking.

Section II (Subjects and Services) contains twenty chapters which consider, in general terms, almost all of the different types of educational experiences provided in modern elementary and secondary schools. The parent who is concerned about decreasing drill in certain mathematical operations can find reasons for this change in the chapter on mathematics (pages 169–80). The value (or lack of value) of parsing sentences and similar formal grammar work is considered (pages 125–26). Although this entire section is written primarily for parents, teachers of various academic areas will profit from reading these descriptions of good modern practice since, as they are often willing to admit, their own practice may not be as good or modern as it ought to be.

Section III (Issues of Interest) contains only four short chapters but they provide excellent material for study and discussion by lay groups who ultimately, of course, have much to say concerning how the issues will be resolved. The chapters "Religion in the Public Schools" and "Education and Leisure" are particularly forceful and provocative.

It is the reviewer's judgment that few lay parents will find the book easy to read. This is unfortunate because the ideas and research findings in the book are those that modern educators need "to get across" to parents. Possibly the book will be most valuable to teachers and administrators who can, as occasions arise, personally help get the ideas into the minds of parents.

The book ought to be required reading for newly elected members of boards of education who need to get a quick overview of "what today's schools are trying to do—and why."

HERBERT L. COON

SCHWARTZ, ALFRED; TIEDEMAN, STUART C.; AND WALLACE, DONALD G. *Evaluating Student Progress in the Secondary School.* New York: Longmans, Green and Company, Inc., 1957. xiv+434 pp.

This book, the authors report, was written to help classroom teachers who continuously face the task of appraising outcomes of the teaching-learning process in which they are involved with students. In the judgment of this reader, the book used in this way can be a very helpful resource.

Especially noteworthy is the importance the authors attach to purpose in the evaluative process. For example, in discussing the matter of so-called intangibles, they state:

> The key to the measurement of intangibles is to be found in a clear definition of purposes. As we learn to analyze and define what it is we are trying to do, and as we learn how to translate these goals in terms of expected student behaviors, we can also learn how to measure those behaviors (page 21).

Also significant is their assertion that highly effective learning requires an involvement of students in the selection and organization of curricular content and in the analysis of behavior to be achieved. From this perspective, they deal with such topics as objective tests, essay and short-answer tests, check lists and questionnaires, observation techniques, informal techniques, the case study, and standardized tests. Four chapters focus on the interpretation of test scores, the diagnosis of results of measurement, and the guidance and reporting of student progress. All of these topics are discussed in a way that should clarify them for the teacher who does not have a statistical background.

In view of increasing evidence to support the proposition that a teacher must develop an adequate self-concept if he is to function most effectively, one wishes that the authors had explained what this means in the total evaluative process. Until a teacher senses clearly what kinds of operations are involved here, there is a strong probability that this crucial dimension of the process will continue to be short circuited.

PAUL KLOHR

WIGGINS, SAM P. *The Student Teacher in Action.* Boston: Allyn and Bacon, Inc., 1957. xii+217 pp.

Numerous textbooks for student teachers have appeared in recent years, and the publication of a new book would normally receive only passing mention. The fact that this one is distinctly different from all the others makes it a significant addition to the literature in this field.

Unfortunately, most textbooks for student teachers are given largely to a review of methodology in the hope that the neophyte will be assisted in translating his learning about methods into actual use. By contrast, Wiggins tells the student teacher in his introduction:

> The aim of the book is to help you to see quickly your total responsibilities and to aid you in discovering courses of action in meeting those

> responsibilities adequately. . . . The book goes beyond the scope of the usual handbook in student teaching but avoids the weighty comprehensive treatments common to conventional student teaching texts (page viii).

Beginning with two excellent descriptions of the normal progression of a student in a good program, the first three chapters treat the various relationships which are so important in student teaching. The concrete suggestions on human relations (pages 36–40) are probably more *à propos*, better written, and more likely to be well received than may be found in the literature anywhere. If all students and co-operating teachers could read and put into practice the ideas in these three chapters, the quality of student teaching in America could be transformed at once.

The second and third sections of the book deal with methods and activities beyond the classroom, but again in a different way. The emphasis is on stimulating the student to think, to do, and to understand relationships; but the related content material, already covered elsewhere, is wisely left out. As a result references to other sources are very important, and these are especially carefully selected.

The chief criticism which has been voiced of this work is that it is inadequate to serve as the single textbook. In view of the author's announced purpose this is a high compliment. The book is unquestionably the best supplementary textbook ever written for student teachers.

The author has proved himself unusually skillful in adapting the book to the diversely different plans of organization of student teaching found in different colleges. Further, he is generally able to avoid "preaching" to students, which is the normal flavor of writing which directs the behavior of others. The style makes reading a pleasure, for it flows almost as easily as fiction, with short introductions, brief analyses of problems, pertinent concrete illustrations, clearly stated principles, practical and positive suggestions, and brief summaries with a forward look.

While emphasizing principles of good human relations at all points, the author goes much further and frankly faces a large number of the potentially bad situations and problems without unduly frightening the reader. The student is given realistic but helpful ways to study himself and his behavior as well as practical suggestions for improvement. The most unusual feature of the book is a number of sensible suggestions to help the student teacher solve problems which arise because of the limited ability, experience, or insight of the co-operating teacher. L. O. ANDREWS

VAN DEN HAAG, ERNEST. *Education as an Industry*. New York: Kelley and Millman, Inc., 1956. vii+163 pp.

Mr. van den Haag presents the thesis that education is a sound economic investment, but the opportunities to share in it are limited to those young people whose families are able to finance them while obtaining a college education. He cites statistics to show that increased income results from additional education by comparing the earning power of physicians to that of street sweepers.

The author is strong in his recommendation of the concept that education as a capital good and as a consumer good should be preserved, also that it should not be supported by public taxation. That "freedom to purchase education as a consumer or capital good is a safeguard against exclusion of nonconformists" (page 64).

Many types of aid available to students from low-income families are analyzed and found to be inadequate to meet the needs of present-day society. He then proceeds to recommend a strictly economic system of financing collegiate education whereby students may borrow the entire cost of their education and repay it from their future earnings. However, the manner in which the original sum to be loaned on these long-term promissory notes would be raised is not presented by the author. A possible means of raising the initial capital sum may be found in the following observation:

> Most college and university as well as professional training leads to tangible and divisible returns which increase the income of the trainee. Where this may be expected, the alumnus practicing the skill which he acquired as a result of his education should repay the university (page 70).

Perhaps this is the method by which the author would expect to raise and maintain funds for operating the proposed loan fund for equalizing educational opportunity.

The program of aid recommended would in no wise increase the cost of college education to the taxpayer. It would simply afford young people who would not otherwise be able to enter a profession an opportunity to obtain the necessary preparation by repaying the cost from their increased earning capacity thereby increasing the economic level of the nation. Furthermore, it would not interfere with the programs of students who did not wish to avail themselves of the plan. The chief merit of the proposal seems to be that it provides a sound economic basis for equalizing educational opportunity without a subsidy from public funds.

ROBERT W. HAWS

BRUCE, WILLIAM F., AND HOLDEN, A. JOHN, JR. *The Teacher's Personal Development: an Introduction of Self-Awareness and Interpersonal Relations.* New York: Henry Holt and Company, 1957. vi+346 pp.

This is an excellent book. The authors state that "while the book is addressed to all those within the scope of the school who are concerned with ways of working with people, it is designed particularly for college students preparing to enter the profession" (page iii). This book should help not only professional persons in education and stimulate critical reflection on their part, but it should be of interest to parents and other persons who are concerned about modern educational theories and problems.

These collaborators have set as their central theme the idea that the teacher's personal development "centers upon the significance of the teacher's experience with people, especially as that experience promotes self-understanding that leads to further understanding of others as people and problems are met within the area of school contacts" (page iii). The reader is first introduced to basic assumptions about scientific method and democratic social processes which the authors feel underlie the aims and procedures of the educational program. Following this, attention is given to the teacher's resources from childhood (Part II) and from youth (Part III). The chapters here included are well-written, well-documented accounts of child and adolescent development. The research from the fields of psychology, medicine, psychiatry, education, sociology, and social psychology are brought to bear in a nontechnical, but accurate and effective fashion. These two parts of the book should be of particular interest and help to parents. The last two parts of the book are written more directly for the beginning teacher or the teacher returning to the profession after an absence of some years. In Part IV chapters are included which deal with such topics as entering the teaching profession, working with learners, co-operating with professional associates, and living in the community. The content of these chapters is realistic and practical, dealing with ideas and questions which are of immediate concern to teachers before they begin service. In Part V, "The Experienced Teacher's Own Theory," the authors emphasize the idea that the

> . . . process of personal growth is never-ending, for pupil and teacher, and the major responsibility for promoting it successfully lies with the teacher. In this demanding task the teacher must depend upon his sense of the experience at hand in its relation to clearly perceived and constantly developing theory (page 310).

There are many other excellent features of this book which recommend it: an annotated list of instructional films at the end of each chapter, comprehensive chapter bibliographies, and study questions which are incorporated within the text.

HUGH D. LAUGHLIN

* * *

We Recommend More Team Research

[*Continued from page 30*]

Team research also makes possible the undertaking of studies of greater size than can be undertaken singly; in our study of related literature we agreed that more comprehensive studies of considerable scope are needed, especially in school-community relations. Communication and co-operation between school and community are such broad subjects and have so many ramifications that one-man studies are often too limited for conclusions and generalizations that have wide application. But aside from producing findings that are of greater significance, we recommend the team method as a means of making graduate research a very enjoyable and worth-while educational experience.

[Vol. XXXVII, No. 2]

Teachers Explore Their Attitudes toward Research

[*Continued from page 38*]

work or to test a new idea in the classroom, we tend to hear a deep echo inside us which says, "Don't try!" The educational consultant will find it most difficult to help teachers do action research, that is, improve their school practices in a scientific way, unless he is able to find ways of helping teachers face their attitudes toward action research.

[Vol. XXXVII, No. 2]

Civilizing Young Savages

[*Continued from page 48*]

age is one of our most urgent and difficult problems. Happily, beginnings have been made which help point the way. The Civilian Conservation Corps and the National Youth Administration camps, which were improvised during the great depression of the 1930's, with all their defects, made a real contribution to education and human conservation. Other agencies, including the American Friends' Service Committee, the Boys' Towns, some summer youth camps, and some of the better correctional institutions, are rendering fine service. California, Minnesota, and Wisconsin have pioneered with work-and-education camps. Doubtless there will be no single, simple solution to the problem of providing work experience for young people, but, until we solve it, we shall not be successful at our job of civilizing young savages.

R. H. E.

BUREAU O[illegible] RESEARCH
LIBRARY
55

EDUCATIONAL RESEARCH BULLETIN: ERB

87

Vol. XXXVII, No. 3

COLLEGE OF EDUCATION
THE OHIO STATE UNIVERSITY

MARCH 12, 1958

EDUCATIONAL RESEARCH BULLETIN

(Entered in the United States Patent Office)

R. H. ECKELBERRY..............*Editor*
J. MACLATCHY........*Assistant Editor*

PUBLISHED BY THE BUREAU OF EDUCATIONAL RESEARCH AND SERVICE, OHIO STATE UNIVERSITY, FOR THE SCHOOLS OF OHIO. EDITORIAL AND BUSINESS OFFICES, ROOM 203, COLLEGE OF EDUCATION, COLUMBUS, OHIO

ANNUAL SUBSCRIPTION ONE DOLLAR ($1) TO PERSONS LIVING OUTSIDE OHIO

CONTENTS

Ways in Which Supervisors Help Student Teachers......... 57
NEAL R. EDMUND AND LYLE HEMINK, *State University of New York College for Teachers, Buffalo*

Evaluating School Objectives........................... 60
R. RODERICK PALMER, *Ohio State University*

A Reappraisal of Marking Practices..................... 67
ALBERT K. KURTZ AND MORTON A. BERTIN, *University of Florida*

Editorial Comment...................................... 57

Readings... 79
Methods in Personality Assessment: Human Behavior in Complex Social Situations, Education Faces New Demands, The Teacher as a Guidance Worker, The Pupil Assistant in the School Library, Frontiers of Secondary Education I, The Beginning Teacher, The National Interest and Foreign Languages, The Liberal and Technical in Teacher Education: a Historical Survey of American Thought.

THE EDUCATIONAL RESEARCH BULLETIN is published monthly except during June, July, and August. Entered as Second-Class Matter, February 9, 1922, at the Post Office at Columbus, Ohio, under the Act of August 24, 1912. Accepted for mailing at specified rates of postage provided for in Section 1103, Act of October 3, 1917, authorized February 21, 1922.

Educational Research Bulletin

MARCH 12, 1958
Vol. XXXVII, No. 3

Ways in Which Supervisors Help Student Teachers

By NEAL R. EDMUND AND LYLE HEMINK

THE college supervisor frequently finds that one of the most frustrating aspects of supervising student teachers is the difficulty of determining his own effectiveness. What supervisory practices are most helpful to students? What practices actually inhibit a supervisor's effectiveness? In what ways can he be more helpful to students during their student teaching?

In an attempt to provide more information concerning the effectiveness of college supervisors, a sample of 72 students randomly selected from a group of 160 student teachers at State University College for Teachers at Buffalo were asked the following questions:

1. In what ways have your college supervisors helped you most?
2. In what ways could your college supervisors have helped you more?

The summary of the students' answers to the first question are given in the table which follows. The percentages do not total 100 per cent because each student mentioned more than one kind of help. The combined percentages of the students mentioning each type of assistance were:

	Percentage of Students*
Encouraged the students, showed personal interest in them, and were understanding and sympathetic	65
Gave constructive suggestions	56
Were frank and honest in their criticism	52
Set good examples of how to be friendly and professional	49
Helped students procure materials for teaching	24
Were prompt in keeping appointments	15
Helped students in their planning	14
Were good listeners	7
Observed different lessons each visit	1
Observed for half-day periods	2

* Each student responded more than once and, therefore, it is not possible to total the percentages to 100.

The greatest number of students, 65 per cent, said they were helped most by encouragement from their college supervisors. They were grateful for the personal interest supervisors showed and they especially appreciated the understanding shown in helping them solve teaching problems. Second in the frequency of mention was constructive suggestions. Fifty-six per cent of the students stated they received helpful suggestions, ranging from selecting a film for a social-studies lesson to techniques for improving blackboard writing. "Frank and honest" criticism was mentioned by 52 per cent. The students found such criticism extremely valuable because it helped them identify and isolate needs upon which they could work for immediate improvement. Practicing what one preaches is a seeming virtue not to be ignored in supervision. Forty-nine per cent said they were helped ("inspired and stimulated") by the supervisor's "friendly and professional behavior." Twenty-four per cent of the students received help in procuring materials, stating that in some cases supervisors lent them personal books and other materials on instruction. Fifteen per cent of the group appreciated the promptness of supervisors in keeping appointments. Smaller percentages found long periods of observation helpful to them because the supervisor saw a number of different activities during his visit. Seven per cent were grateful to their supervisors for being "good listeners."

The students listed ways in which college supervisors helped them, but they listed more than twice that number of ways in which college supervisors could have been more helpful to them. Many of these suggested ways, however, came from a single individual or a small group of two or three, and the suggestions themselves varied widely. The accumulated percentages, which again total more than 100 per cent, summarize the students' answers to the second question:

	Percentage of Students*
Observe the student's teaching performance more often and observe for longer periods	25
Participate in three-way conferences	22
Be more frank and honest in criticising the student's performance	21
Give more time to conferences with student teachers	18
Keep appointments promptly	12
Help students in planning	7
Tell supervising teacher what is to be expected of the student teacher	5
Help students meet needs of problem children	4
Offer more encouragement and show more interest in student teachers	7
Give more help in procuring materials	5
Teach demonstration lessons	..†

	Percentage of Students*
Learn the supervising teacher's methods and don't criticise student for using them to the teacher	†
Keep own educational opinions and arguments to self	†
Tell the supervising teacher what her duties are	†
Don't take notes while student is teaching	†
Place in a school with another student	†

* Each student responded more than once and, therefore, it is not possible to total the percentages to 100.

† Percentages for two comments or less are not recorded.

Over 25 per cent suggested that they could have profited from more frequent visits and that the observations should have been longer. Twenty-one per cent reported supervisors could have been more frank and honest in their criticisms; 18 per cent would have liked more three-way conferences involving the supervising teacher, the student teacher, and the college supervisor; and 12 per cent stated that college supervisors could have been more prompt in keeping appointments.

The findings of this investigation indicate that the kind of supervisory practices described herein are meeting the needs of most student teachers. However, there appears to be a necessity for more emphasis upon the very activities students reported most helpful. For example, 52 per cent of the students derived benefit from frank and honest criticism and 22 per cent favored more frankness and honesty in criticism.

It appears significant to the investigators that 25 per cent of the students felt a need for more frequent observations of their work, for longer observations, and for more time spent in conference with supervisors. The authors know from experience the pressures involved in observing a large number of students and conferring with each of them. They believe, therefore, that students have found the reason for many student-teacher problems. The college supervisor is not around when he is needed most because he has too many students to supervise and too many places to visit.

While the findings of this brief survey have been somewhat reassuring to the members of our supervisory staff, several areas needing more attention and exploration are clearly indicated. These include more frequent and more detailed observation of the student's teaching performance, more help given to the student teacher in dealing with children who have special problems, and three-way conferences.

In today's professional schools of education, student teaching has become widely accepted as an integral part of the program of teacher education. As such, adequate supervision by college personnel becomes essential if student teachers are to gain as much as possible from student-teaching experiences.

Determining what "adequate" supervision entails requires thorough and continuous study of all aspects of student teaching; for example, qualifications of personnel, public-school classroom methods, and, lest we forget, sufficient funds and a realistic supervisory load. Unless this is done, our student teachers are getting less than the best we can afford to provide; these students are not benefiting from a sound supervising program; and, what is more basic, our children are being unnecessarily deprived.

[Vol. XXXVII, No. 3]

Evaluating School Objectives

By R. RODERICK PALMER

EVALUATION in distinction from educational measurement begins with an objective and then seeks the best possible devices for ascertaining the degree to which the objective has been attained. In considering the instruments and devices recently developed for educational appraisal it will, therefore, be pertinent to discuss them in relation to some arbitrarily chosen objectives, equally appropriate for use in the elementary school and the secondary school. In arranging this paper, objectives have been used which are similar to those used by the members of the Evaluation Staff of the Commission on the Relation of School and College of the Eight-Year Study.[1] Rather than to list these topics here, each is set in italics the first time it is mentioned.

THE possession of *functional information* may be appraised by asking pupils questions in which facts are not only to be recalled but are to be put to an appropriate use. Questions may be raised which are not dealt with in the textbooks or reference books employed in the classroom but which can be answered by the use of facts brought out there; or certain facts may be supplied, and questions asked that will require the use of other facts of which the students should be aware. In the Eight-Year Study a test was developed in which two groups of facts are furnished and the problem is to point out from general knowledge of the situation which of these facts are causally related. By an appropriate method of scoring, the results of this test may be interpreted to show the kind of instruction the group most needs. A teacher can discover, for example, whether his pupils have a wide range of information; whether this information covers specific data, trends, or general principles, or all three; and whether particular individuals are able to distinguish between relevant and irrelevant facts. Further teaching can be planned using these findings.

---

[1] Palmer, R. Roderick. "Evaluation: a Reappraisal," EDUCATIONAL RESEARCH BULLETIN, XXXVI (April 10, 1957), p. 139.

EFFECTIVE *work habits and study skills* can now be appraised by the use of a great variety of tests. The Tyler-Kimber Study Skills Test, for example, includes finding what is wanted in a book, using an index, using general reference books, recognizing common abbreviations, using the library card catalogue, interpreting maps, knowing current periodical literature, and interpreting graphs. The Iowa Every-Pupil Test of Work-Study Skills for Grades VI, VII, and VIII covers map reading; use of references; use of index; use of dictionary; reading graphs, charts, and tables. J. Wayne Wrightstone's Co-operative Test of Social Studies Abilities for the high school contains a section devoted to similar skills, as does his Test of Critical Thinking in the Social Studies for the elementary school.

These tests are of the objective type. Ability to use the card catalogue, for example, is tested in the Tyler-Kimber booklet by a list of true-false statements such as the following:

In the library card catalogue, one may usually find:

. . . Books listed by title
. . . The address of a given author
. . . Whether or not a certain book contains a bibliography
. . . The number of pages a book contains

Knowledge of current periodicals like the *Atlantic Monthly, U. S. News and World Report, Time, School Life, Senior Scholastic, Fortune, Reader's Digest, Social Science Abstracts, The Annals,* and *Harper's* is checked by asking that each be matched with the appropriate statement in a list presumably characterizing them, such as:

. . . Reports concisely and spicily the news of the week
. . . Summarizes in brief form a large number of scientific articles in social and economic fields

Knowledge of the use of reference materials is tested in the Iowa Every-Pupil Tests by stating a series of questions, each followed by four sources from which the correct source is to be chosen. An example from this test is the following item in which the child is asked to select the source in which the correct answer is to be found:

> What are the five largest cities in the world?
>
> (1) a dictionary, (2) an encyclopedia, (3) an atlas, (4) a world almanac

The results of the tests of study skills can also be used as a basis for remedial teaching.

THE child's *range of significant interests* can be ascertained by such methods as direct observation; a study of diaries, logs, and journals written by him; the use of questionnaires; interviews; a record of his activities in his free time; a record of his voluntary contributions to class projects; or by a test of the kinds of general information which he has accumulated. Observation is most valuable in the case of the younger child, for he has not yet acquired the habit of disguising his interests. The same is true, though to a somewhat lesser degree, with reference to the diaries and other records of thoughts and activities kept by the child. The questionnaire is, of course, valuable exactly in proportion to the frankness with which the questions are answered, for a tendency to give the reply which will be approved rather than the one which represents the precise facts of the case is frequently present. An interview based on the completed questionnaire is a desirable checking device.

The questionnaire may take different forms. In one form, the questions are direct, as when the pupil is asked to check in a set of activities (tennis, dancing, camping, reading books, and so on) those in which he has recently engaged, and then to indicate in the list of nearly one hundred the three which he likes best. In another form the pupil may be asked which of a list of activities he likes, those to which he is indifferent, and those which he dislikes. As supplementary information he may also be asked to name activities in which he has had experience and those in which he wishes some increased opportunities for experience. Records of free-time activities, although they may indicate what was open to the child rather than what he wished to do, have the advantage of indicating choices actually made rather than those which the pupil thinks an adult would like him to make. Attendance at concerts, theaters, motion pictures, and the like are helpful in indicating interests. His reading preferences may be more accurately shown by a list of the books and magazines he voluntarily perused than by a checking of topics, if it can be assumed that the record is accurate and that a wide choice of material is available. In some cases it is possible to list the books the pupil has withdrawn from the library for recreational reading. The phase of a class problem chosen by the pupil for special study will also reveal something of his current interests.

When dealing with the older student, some test makers hold, much can be learned about his interests by a test covering a wide range of general information. The topics on which the student is well informed are those to which his interests lead him in his reading. The Cooperative Contemporary Affairs Test,[2] built upon this theory, is divided into six sections representing, respectively, political events, social and economic events, science and medicine, literature, fine arts, and amusements. The items are arranged in multiple-choice form and on the whole require only superficial information. Great differences among individuals are revealed by this test. Those persons who are planning to enter engineering are usually well posted in science; those planning to enter public life make high scores on political and social events and poor ones on scientific events. Striking sex differences are also revealed, with women better posted in literature and fine arts than in science and men least informed in the first two areas. These differences are confirmed by other means, such as a list of best-liked magazines. The interests are then revealed. A test of this sort has the advantage of accuracy, since the answers cannot be chosen on the basis of what is likely to please the tester, and of ease in scoring. It has the evident disadvantage of indirection, since it measures information, in order to obtain a record of another attribute, interest. Further experiment with tests of this sort seems desirable, as well as a development of elementary-school tests.

THE development of *social attitudes* can be ascertained by observation of children at work or by the use of paper-and-pencil tests. Observation will be aided by the use of a check list of types of behavior indicating certain types of attitudes. The tests and scales concerned with social attitudes are of several different kinds. In one of the simplest, the pupil is given lists of words and is asked to cross out those which immediately impress him as indicating something disagreeable. If his response is inconsistent, a valuable lead is given the teacher as to the kind of instruction needed. A commoner type of test supplies a list of short, direct statements about some controversial issue and asks the pupil to check those with which he agrees and to mark with an x those with which he disagrees. Each statement has a numerical value, known to the tester, which indicates its degree of approval or disapproval of the matter under discussion. By adding the scale values of each of the statements it is possible to see how far the pupil tested is to the "right" or the "left" on the particular issue.[3]

---

[2] Revised annually by Cooperative Test Service, 15 Armsterdam Avenue, New York.

A slightly more intricate form of this sort of test asks the pupil to make a large number of choices. He may be asked to show whether he agrees with the whole statement, is undecided about it, or disagrees with it; or he may be asked to choose among five possible opinions—strongly approve, approve, undecided, disapprove, strongly disapprove. Some of these scales deal with a large number of issues at once and attempt to get an indication of the pupil's social outlook in general.

THE degree of *social sensitivity* attained by students, involving among other things a disposition of the individual to project himself sympathetically into the lives and problems of other people and to consider the effects of his personal actions upon the welfare of others, may be appraised by the use of such devices as:

Recordings of conversation regarding controversial issues
Reports of occasions designed to stimulate the individual's reaction
Records of selective observation including behavior under each of the school's major objectives
Written work indicating by the topic chosen or by the treatment significant social interests
Lists of books read and book reviews written by the student
Statement by the student of his plans and hopes for his life after high school
Case studies of individuals
Tests—paper and pencil—allowing the student to respond to a wide range of suggested situations and permitting the teacher to compare the responses made to different situations

THE development of *appreciation* can hardly be discovered by the many existing tests of knowledge about literature, history, and biography or by the several tests of ability to discriminate between good and bad literature. If the objective in teaching literature is taken as extension of the breadth and depth of interest in literature and the resultant enjoyment of it, then the natural method of measuring success in teaching literature is to get a record of new interests and of types and amounts of leisure-time reading. The same remarks apply to the teaching of music and the graphic arts.

---

[3] *See* H. H. Remmer's studies in attitudes published by Purdue University.

IN RECENT years, the evaluators have probably made greater progress in devising appraisals of the development of *effective ways of thinking* than in measuring any other objective. Thinking has been analyzed into its various phases and separate instruments of appraisal constructed for many of them. The ability to interpret data, one phase of effective thinking, has been tested by supplying the student with a set of facts followed by a series of statements representing sound and unsound interpretations of the facts. Each of the statements is to be marked in one of five ways: true, probably true, evidence not sufficient for a decision, probably false, and false. The facts are sometimes supplied in paragraphs but oftener in charts and tables. The students' answers may be appraised as a basis for conference and for remedial teaching, in terms of such criteria as these:

Relevance: Are his interpretations relevant to the data?

Caution: Are the inferences he draws justified by the data or does he go beyond the data without recognizing that he is making only a tentative hypothesis?

Consistency: Are the conclusions or hypotheses consistent with all the available data?

Comprehensiveness: Does he utilize all of the relevant data or do his interpretations fail to take certain items into account? Does he use other relevant information he possesses in interpreting the particular set of data?

Accuracy: Are his interpretations as accurate as the data permit or are they only rough approximations?

Objectivity: Is he able to derive relevant conclusions when these conflict with his own preconceived beliefs?

Perception of relations: What range and what types of relations does he perceive among the various items of the given data?

Recognition of trends: Does he recognize chronological trends when these are indicated? Does he exercise appropriate precautions in interpreting and projecting such trends?

Recognition of bias: Does his interpretation indicate an awareness of various types of misrepresentations and bias, such as the omission of significant facts, optical illusions in charts and graphs, . . . etc.?

Types of problems: Relating to what range and what types of problems does he make satisfactory interpretations of data? What types of problems cause difficulty?[4]

The ability to apply principles in new situations has been tested by describing a situation involving a problem and either asking the student to explain what has been observed to happen when certain things are done or asking him to predict what will happen if certain things are done. The ability to discriminate between sound and unsound arguments has been tested by supplying a paragraph leading up to a definite conclusion which is underlined, asking the student to indicate whether he agrees with this conclusion, and asking him to choose from a considerable list of brief statements following the paragraph those which support the conclusion, those which tend to undermine it, and those which would have to be assumed true if its conclusions were to be considered true. In another form, three conclusions are furnished, from which the student selects the one he considers sound, after which he checks from a list of six reasons those which support the conclusion he has chosen.

FROM the types of evaluating devices which have been cited, it seems evident that a great deal of progress has been made in recent years toward a school appraisal which will take into account all the most important objectives of education. Instead of measuring a restricted number of educational results for which we have long possessed measuring instruments, and then inferring from these few the status of the school with reference to all other objectives, it may presently be possible to give a reasonably accurate picture of the school's performance in all the most significant areas of education. More important, it will then be possible to advise children and parents of the progress that is being made by individuals toward each of the important objectives, and to make clear to teachers the kind of instruction that is needed to attain the objective more effectively and consistently.

[Vol. XXXVII, No. 3]

---

[4] American Education Fellowship, Commission on Secondary School Curriculum. *The Social Studies in General Education.* New York: D. Appleton-Century Company, 1940, p. 365.

A Reappraisal of Marking Practices

By ALBERT K. KURTZ AND MORTON A. BERTIN

Diverse scholastic groups frequently are accorded varying positions of esteem in academic as well as in lay circles. Aside from those hierarchies established in terms of interuniversity prestige, there are also intra-university rivalries. Academic degrees in a single school may occupy widely divergent positions of status. Numerous studies have attempted to resolve, once and for all, the touchy problems involved in determining interdepartmental values. Unfortunately, most such efforts reflect one or another particular point of view, so that personal bias and background often supplant fact. More inquiries of an empirical and objective nature are indicated.

Harvey Alpert and Robert O. Stripling attempted to determine the relationship between marks received by Education majors in courses in Education, and the marks acquired by these same students in their major fields in the College of Arts and Sciences.[1] They specifically attempted to discover whether marks received in subjects taught by members of the faculty of the College of Education differed significantly from those in the student's major subjects taught by the faculty of the College of Arts and Sciences. They selected the 101 most recent graduates of the College of Education in the field of secondary education who met certain criteria, and compared their marks in the two categories just described. It was assumed by those authors that students should have the same degree of motivation in these two groups of courses. They then made three comparisons:

1. Education courses excluding practice teaching and major teaching field
2. Education courses including practice teaching and major teaching field
3. Education courses excluding practice teaching and Education courses including practice teaching

The major teaching fields were restricted to English, mathematics, science, and social studies. They reported significant differences for the last two comparisons, but not for the first. Asserting that no valid comparison could be made between marks in practice teaching and those in subject-matter courses, Alpert and Stripling concluded that no significant differences exist between the marking practices of the College of Education and of the College of Arts and Sciences.

---

[1] "A Comparison of Marking Practices," Educational Research Bulletin, XXXIV (January 12, 1955), pp. 10–14.

For numerous reasons, it is evident that both the primary assumption and the conclusion are subject to re-examination. It is not at all clear why a mark in practice teaching which "is determined by over-all performance in a teaching situation" should be excluded from the over-all mark. Such reasoning might easily be extended to cover marks in seminar, laboratory, and even classroom performance. Moreover, an analysis of the data presented in the article brought to light errors of a less ambiguous nature. Alpert and Stripling reported means and standard deviations for their three grade-point averages. It was impossible for us to check these computations (as will be explained later).

When

$$N = 101$$

it is necessary to divide by

$$\sqrt{N - 1}$$

in order to obtain

$$\sigma_M$$

These three divisions by 10 were carried out correctly by Alpert and Stripling. They derived six other figures from these, and every one of them is in error. It appears, from the first type of error, that they must have used the incorrect formula

$$\sigma_{(M_1 - M_2)} = \sqrt{\sigma^2_{M_1} + \sigma^2_{M_2}}$$

for the standard error of the difference. (All three of their standard errors of differences can be obtained from the given standard errors of their means by this formula and all three would have been much smaller if the correct formula had been used.) This neglect of the correlation term invalidates: first, all three standard errors of the differences; second, all three critical ratios; and, of course, third, all conclusions based upon these erroneous figures. Furthermore, in computing one of the critical ratios, it appears that there was a reversal of numerator and denominator so that instead of dividing .06 by .07 and obtaining .86, .07 was divided by .06 and the quotient (actually 1.17) was recorded as 1.16. Obviously, it seemed appropriate to recompute all of Alpert and Stripling's figures. This objective turned out to be unachievable.

In order to review their study, we asked Alpert and Stripling to permit us to examine the original data. We were informed that these were not available. Names of the students whose records constituted the data for the study were likewise said to be unavailable. Finally, we were told that it was impossible for them to explain the basis of classification at the present time, though perhaps this might be done next fall. In view of this, we chose our cases on the basis of the criteria of selection published by Alpert and Stripling. Lists of the most recent graduating classes of the University of Florida College of Education were obtained. We then set up the following criteria:

1. Students must have graduated in secondary education.
2. It being assumed that a student would practice teach in his major field, subjects were restricted to those whose teaching major was English, mathematics, science, or social science. Group majors were classified according to the subject first listed.
3. No student was accepted who transferred from another university with more than 6 credit-hours, nor who started at the University of Florida and accumulated more than 15 credits at another university even though he returned later to complete his courses and graduate. (In the few cases in which students took a negligible amount of work elsewhere, this work was ignored.)

Records were obtained for all students who graduated in the seven classes from June, 1954, through June, 1956. All students who met the criteria just given were included, and no one was eliminated for any other reason.

THE seven grade-point averages shown at the left of Table I were computed for each of the 113 students. These were averaged for each of the four teaching majors shown at the top of the table (*see* Columns 2, 3, 4, and 5) and for the entire group of 113 students (*see* Column 6). The seven categories are here arranged according to the grade-point averages of the total group (given in the last column). The highest marks (averaging 3·33 or *B*+) are given in practice teaching and the next highest in Education courses. At the low end of the scale are the marks in Comprehensive courses[2] which are usually, but not always, lower than the Arts and Science marks.

[2] These are basic lower-division courses in English, American Institutions, logic, mathematics, humanities, and physical and biological sciences. In many institutions they would be regarded as additional Arts and Science courses.

Table I thus presents conclusive evidence that the mean marks for Education courses with or without practice teaching, as well as practice teaching by itself, are higher than those for any of the other categories. There are large differences between marks in Education courses, on the one hand, and marks in various Arts and Science or Comprehensive courses, on the other. Each subject, as in the Alpert and Stripling study, acted as his own control; hence, there can be no doubt that they were equated in terms of ability.

TABLE I

Average Marks in Seven Subject-matter Fields, As Given to Students with Various Teaching Majors

(1)	English (47) (2)	Mathematics (19) (3)	Science (15) (4)	Social Studies (32) (5)	All Students (113) (6)
Practice teaching	3.37	3.58	3.40	3.09	3.33
All Education courses	3.18	3.38	3.22	3.02	3.18
Education courses excluding practice teaching	3.04	3.24	3.09	2.96	3.06
Teaching major	2.79	2.94	2.47	2.58	2.72
All Arts and Science courses	2.70	2.91	2.52	2.53	2.66
Arts and Sciences other than teaching major	2.61	2.71	2.63	2.40	2.57
Comprehensive courses	2.34	2.96	2.66	2.35	2.49

Table I contains 15 figures based on marks in Education courses with or without practice teaching. The lowest of these is 2.96. The table also contains 20 figures based on marks in Arts and Science and Comprehensive courses. By an odd coincidence, the highest of these is also 2.96. In other words, the 47 English majors not only received higher marks in their Education courses than in their own courses, but they also received higher marks in their Education courses than any group received in non-Education courses. With the exception of the one tie of 2.96, this is true for all four teaching major groups and for the total group. For all four teaching majors, students get higher marks in Education courses than either they or any other group gets in its teaching major, in other Arts and Science courses, or in Comprehensive courses. (There are 15 × 20 or 300 such comparisons that can be made. There are no reversals, there is only one tie, and the other 299 support this conclusion.)

The reader may well say that some of the 300 such comparisons are unimportant. For example, does it really matter whether 19 mathematics majors received higher marks (3.38) in all their

Education courses than did 47 English majors in their Comprehensive courses (2.34)? The writers agree, but it is very important to determine whether certain of the differences within columns are statistically significant or are merely chance fluctuations. A number of such comparisons are shown in Table II.[3]

THE first three rows of Table II give the most important comparisons—the ones which are most relevant to the problem Alpert and Stripling set out to solve. The evidence is overwhelming. There is no doubt whatever that students of equal ability (since they are identical students) receive higher marks in Education courses than they do in their teaching major, in all Arts and Science subjects, or in their Comprehensive courses. The t ratios of 9.3, 12.1, and 11.3 are among the largest the writers have ever encountered for a group of only 113 cases. (A t of 3.4 or higher could arise by chance only once in a thousand experiments if there were no real difference. The odds against there being no differences in these marking practices are roughly of the magnitude of betting our national debt against a dollar.)

In the writers' opinion, the next three rows of the table are not particularly important, since, as mentioned earlier, we see no more reason for excluding practice teaching from other Education courses than there would be for excluding bacteriology or religion (which also give high marks) from the grade-point average in Arts and Science courses. This exclusion was made solely because Alpert and Stripling did so. It is still true that Education marks, even without practice teaching, are higher than others, though it is interesting to note that the difference between practice teaching and other education courses, while significant, is less significant than any of the preceding differences. The last row of comparisons in the table shows that students whose teaching majors are English or social studies get higher marks in those subjects than they do in their Comprehensive courses, while there is no appreciable difference or it is reversed

---

[3] All figures shown in Tables I and II were computed to at least one or two more places than here shown. The subsequent rounding results in a few apparent inconsistencies. Thus, in the comparison of all Education courses minus all Arts and Science courses for the total group, $3.18 - 2.66 \neq .51$, but since the actual figures are $3.1756 - 2.6648 = .5108$, these have been correctly recorded to two decimals as 3.18, 2.66, and .51. Also, although a t ratio of -2.70 is significant beyond the .01 level of confidence, our —2.7 is not so indicated because it is actually —2.66, which does not quite reach this significance level. These technical points are probably of little consequence, but if anyone wishes to check on these or on more important aspects of the problem, all data and computations will be available.

TABLE II

Differences in Grade-Point Averages in Various Subject-Matter Fields, and their Statistical Significance

	Differences in Means and Standard Errors of Differences (in Italics)					*t* Ratio				
	English	Mathematics	Science	Social Studies	All Students	English	Mathematics	Science	Social Studies	All Students
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
All Education courses minus teaching major	+.39 *.073*	+.44 *.130*	+.75 *.143*	+.44 *.088*	+.46 *.049*	5.3‡	3.4†	5.2‡	5.0‡	9.3‡
All Education courses minus all Arts and Science courses	+.48 *.058*	+.47 *.118*	+.70 *.127*	+.49 *.081*	+.51 *.042*	8.3‡	4.0‡	5.5‡	6.0‡	12.1‡
All Education courses minus all Comprehensive courses	+.84 *.091*	+.42 *.136*	+.56 *.161*	+.67 *.121*	+.69 *.061*	9.2‡	3.1†	3.5†	5.5‡	11.3‡
Education courses excluding practice teaching minus teaching major	+.24 *.074*	+.30 *.137*	+.61 *.131*	+.38 *.093*	+.34 *.050*	3.3†	2.2*	4.7‡	4.1‡	6.8‡
Education courses excluding practice teaching minus Comprehensive courses	+.70 *.077*	+.28 *.149*	+.43 *.132*	+.61 *.123*	+.57 *.057*	9.0‡	1.9	3.2†	5.0‡	9.9‡
Education courses excluding practice teaching minus practice teaching	−.33 *.125*	−.34 *.145*	−.31 *.166*	−.14 *.102*	−.28 *.067*	−2.7*	−2.3*	−1.9	−1.4	−4.1‡
Teaching major minus Comprehensive courses	+.45 *.080*	−.02 *.175*	−.19 *.137*	+.23 *.082*	+.23 *.057*	5.7‡	−.1	−1.4	2.9†	4.0‡

* Significant beyond .05 level.
† Significant beyond .01 level.
‡ Significant beyond .001 level.

for those planning to teach mathematics or science. As can be seen in Table II, the differences obtained for the total group are highly significant in every case, and they are also significant in most instances in the smaller subgroups. Even in the science group, with only 15 students, the difference between grade-point average in science courses and grade-point average in Education courses was highly significant (beyond the .001 level of confidence).

The establishing of differences of such significance is in contradistinction to the figures presented by Alpert and Stripling. Further, they cited a study by McGuire asserting that on the basis of honor-point averages attained in the University College (first two years), students entering the College of Education ranked third from the top, the inference being that the College of Education was getting students of relatively high caliber. But education students almost invariably take some Education courses, while mathematics students take mathematics courses, etc., during their first two years. Hence, the lenient marking practices of education professors, found both in the Alpert and Stripling data and in our own study, must be allowed for before any such ranking can be properly interpreted. In this connection, it may be pertinent to cite the most comprehensive study of the question of which the present writers are aware. Wolfle and Oxtoby secured data on approximately 10,000 college graduates from 40 colleges and universities. They compared different student groups on the basis of scores attained on standard tests of academic achievement. They state that

> there are many more graduate students in education than in any other field, but even so, one of the sad effects of the low salaries and low prestige accorded to the nation's school teachers is the fact that nearly half of the lowest fifth of graduate students in the country are working for advanced degrees in education. They will be guiding the development and influencing the career choices of the next generation of students.[4]

Without in any way attesting to or denying the validity of the foregoing quotation, we are presenting the data which is in itself evidence that regardless of the relative caliber of the students involved, the marking practices of those teaching Education courses are more lenient than of those who teach Arts and Science and Comprehensive courses. It might be possible to make a case for the students by asserting that higher standards should produce greater effort, although such does not appear to be the case when the marks in Education are compared with other subjects. From the facts elicited by this study it is evident that the marking practices are different. It further follows that the responsibility rests with the faculties of the Colleges concerned. It is beyond the scope of this paper to enter into any discussion of what standards should be established for what courses. Our objective was merely to compare, empirically and without bias, the marking practices in certain Colleges in a single University.

---

[4] Wolfle, Dael, and Oxtoby, Toby. "Distributions of Ability of Students Specializing in Different Fields," *Science*, CXVI (September 26, 1952), p. 313.

From the data gathered in this study we conclude:

1. There are significant differences between the marks obtained by students of Education in their Education courses, and those obtained in their Comprehensive courses, in their major teaching fields, and in their other Arts and Science courses.
2. Mean marks in Education courses are consistently higher than those in teaching majors, Comprehensive courses, and other Arts and Science subjects. This is true for all four teaching majors.
3. These differences are due to marking practices in the colleges concerned.
4. These conclusions differ markedly from those previously drawn by Alpert and Stripling.

[Vol. XXXVII, No. 3]

* * *

A SIX-DAY institute on "Atoms, Missiles, and Men" for outstanding Juniors in high-school science and mathematics classes in four states has been announced by the University of Cincinnati. The institute will be conducted June 15-20. It will be the first of a series of annual institutes to indicate to selected high-school students "how the basic sciences are indispensable in understanding currently popular scientific subjects." Admission will be by invitation only. High-school principals and counselors in Ohio, Indiana, Kentucky, and West Virginia have been asked to nominate boys and girls now completing their junior year and ranking among the top 10 per cent in science and mathematics classes. Faculty members of the University and visiting experts will discuss specific problems to show how physics, chemistry, metallurgy, mathematics, and related fields contribute to this era's scientific achievements.

EDITORIAL COMMENT

A Part of Our Job

A FEW months ago, a group of Ohio State University faculty members were conferring with two officials of the Division of Water of the Ohio Department of Natural Resources about the problem of professional and technical training for persons specializing in water research and water management. The function of the Division of Water is to study water supply and demand in the state and to develop plans and policies for water management. One of the two officials had been trained as a geologist and the other as an engineer. The faculty members, who represented several subject-matter areas, were concerned with improving the University's program of training for specialists in the water-management field.

When the two officials were asked what was the greatest lack in the qualifications of the persons whom they employed, each stated emphatically that it was ability to work effectively with people. They pointed out that it is relatively easy to develop a water-management plan that will meet the present and anticipated needs of a given watershed or community. The great difficulty is in getting the people of the area to adopt and carry out a sound plan. These officials were concerned that the University provide training which would make their future employees more effective in what the late W. W. Charters used to call human engineering.

The need for skill in human relations is by no means peculiar to the field of water management. On the contrary, it is all but universal. Leaders of business and industry, personnel officers, government officials, and others tell us that many more persons have difficulty in their jobs through inability to work with people than through lack of technical competence. This is true not only for jobs like those of salesman or office manager, but for many others where the human-relations component is much less conspicuous. Nor is the need for competence in this field confined to persons in professional and semi-professional occupations; it extends to those in trades, industrial and clerical jobs, and many other positions for which formal education beyond the high school is not ordinarily regarded as necessary. Skill in this area is needed by those in "follower" as well as those in "leader" positions. It is needed not only for success in a job but also for happy and effective personal living. Meeting this need is an important part of the job of the elementary and secondary school, technical institute, junior college, college, and professional school.

It is easy to say that schools at all levels should help students develop skill in human relations; it is much more difficult to provide an educational program that will be effective in this respect. If we are to be successful in doing this, we need first of all to recognize that it is a major responsibility—a part of our job. It is a responsibility that is increasing in importance. As scientific and technological progress continues, human relations as well as the physical environment become more complicated, and the need for skill in human relations increases. Other institutions—the home, the church, youth organizations, and so on—share with the school the opportunity and responsibility to promote the development of this skill. The best efforts of all of these will be required if the need is to be met.

If it be agreed that training in human relations is a major function of the school, we face the question as to how the school can perform it. Obviously there is no simple answer to this question—no formula that is guaranteed to produce results. Every school and every teacher needs to work at this task in ways that are appropriate to the situation. Certain principles, however, can be stated with a good deal of confidence. First, we shall not accomplish much in the development of skill in human relations by academic study or "preaching" about it. Second, we need to provide for our students opportunity and encouragement for first-hand experiences in dealing with other people in many different types of situations. Third, if students are to profit fully by these experiences, they must have wise, sympathetic counseling and guidance. This in turn means that teaching staffs must be large enough that teachers and counselors can know their students as persons, rather than merely as members of a class or a homeroom.

Critics are correct in saying that American schools have been much less successful than they should have been in providing adequate intellectual training, especially for the abler students. They are wrong if they say that the school's sole responsibility is that of intellectual training. It is psychologically unsound and educationally impracticable to separate intellectual training from other components of personality development. The school is not responsible for the whole education of the child, but it is responsible, along with other educational agencies, for the education of the whole child. One important phase of this responsibility—one part of our job—is training in human relations. R. H. E.

The editors of the EDUCATIONAL RESEARCH BULLETIN acknowledge an error in the mathematical computations used in the article, "A Comparison of Marking Practices," by Harvey Alpert and Robert O. Stripling[1] which appeared in the issue dated January 12, 1955. The need for checking was brought to our attention by Albert K. Kurtz and Morton A. Bertin.

After receiving this criticism, the article was given to the Statistics Laboratory, Ohio State University, for appraisal. D. Ransom Whitney, director of the Laboratory, made the following comments regarding it.

1. For each computed value of *t* it appears that the authors regarded the correlation as zero for the two sets of measurements used in the computation. This appears to be an incorrect assumption.
2. For the *t* to test the "significance of the difference between marks received in professional education courses excluding internship mark and marks received in major teaching field . . ." the authors have, I believe, erroneously given the reciprocal of *t* rather than *t*.
3. The coefficients of correlation are not given and the measurements are not given. It is impossible, therefore, for the reader to carry out the computations for *t*.
4. The error which appears to have been made has appeared so often in publications that at least one man[2] has written a paper concerning it.

A copy of the manuscript sent in criticism of the Alpert and Stripling article with a copy of Mr. Whitney's comments were sent to Mr. Stripling. His comments quoted from a letter dated September 30, 1957, follow:

1. Their criticism [the criticism of Mr. Kurtz and Mr. Bertin] is correct in that the proper formula was not used.
2. Had the proper formula been used, it would have been necessary to have a correlation of over .80 for the difference of .06 to be significant at the 5-per cent level. According to Garrett, *r*'s between

---

[1] Mr. Alpert is Instructor of Educational Psychology at Michigan State University and Mr. Stripling is Professor of Education, University of Florida. When they collaborated, Mr. Alpert was also at the University of Florida as a Clinician in the Central Clinical Service.

[2] Cantor, Gordon N. "A Note on a Methodological Error Commonly Committed in Medical and Psychological Research," *American Journal of Mental Deficiency*, LXI (July, 1956), pp. 17–18.

achievers in academic fields usually run from .40 to .60. Hence, such an r is doubtful.[3]

3. The two studies (Alpert-Stripling and Kurtz-Bertin) were made on different groups. It is possible that both are correct. The only way to check would be to draw another sample for the period preceding the sample studied by Kurtz and Bertin.
4. Kurtz and Bertin imply that we refused to co-operate in supplying the original data that was used for our article. The facts are that Mr. Kurtz, in a letter dated November 22, 1955, was notified that these data had regrettably been lost in transit.
5. I agree in general with the statements made by Mr. Whitney in his memoranda to you.

Mr. Stripling said in his letter: "Two statisticians on our campus checked the statistical data before we submitted it to you for publication. How this error was overlooked by all of us is hard to understand."

The criticism of the Alpert and Stripling article appears elsewhere in this BULLETIN under the title "A Reappraisal of Marking Practices" and is written by Albert K. Kurtz and Morton A. Bertin.[4] This manuscript was also sent to Mr. Whitney. His comments comprised the following mathematical appraisal and two general comments:

1. It is impossible to determine whether the group studied by Mr. Kurtz and Mr. Bertin is comparable to the group studied by Mr. Harvey Alpert and Mr. Robert O. Stripling. The conclusions presented by the papers are not, therefore, necessarily contradictory.
2. We suggest that the paper by Mr. Kurtz and Mr. Bertin be revised and presented for publication as a report of their research with a footnote concerning why the work was done.
3. The space devoted to the criticism of the paper by Mr. Alpert and Mr. Stripling is quite out of proportion to the length of the paper of Mr. Kurtz and Mr. Bertin and the offense of Mr. Alpert and Mr. Stripling.

Mr. Kurtz and Mr. Bertin have not followed the suggestion made in the second comment or regarded the appraisal of their discussion given by Mr. Whitney in the third comment. Their reply was, "We prefer to rest our case on the article."

J.H.M.

---

[3] Garrett, Henry E. *Statistics in Psychology and Education.* New York: Longmans, Green and Company, 1953, p. 173.

[4] The writers are, respectively, Professor of Psychology and Public Health Service Research Fellow of the National Institute of Mental Health. Both are at the University of Florida.

READINGS

Stern, George G.; Stein, Morris I.; and Bloom, Benjamin S. *Methods in Personality Assessment: Human Behavior in Complex Social Situations.* Glencoe, Illinois: Free Press, 1956. 271 pp.

This book, as the title suggests, is concerned with the development and evaluation of methodologies. It describes four methods of assessment—analytical, empirical, synthetic, and configurational—and illustrates their use with various types of cases or samples. Assessment involves not only an analysis of the characteristics of persons, but also of situations. Environmental pressures and rôle demands are analyzed to provide a model of the effectively functioning individual. A great variety of tests, scales, observations, and judgmental assessments is then related to the model.

A new model or set of rôle specifications is developed for each sample of subjects. Small samples are used for the initial testing of assessment methods. But increasingly larger samples are employed as the utility of the various models and assessment methods becomes established. Samples of theological students, teacher trainees, graduate students in physics, college Freshmen, and assessment personnel are studied.

A valuable empirical outcome of the study is the identification of three distinct attitude syndromes, two of which parallel the purported authoritarian and non-authoritarian personality types. The third syndrome, characterized by a cynical concern with ideas and a rejection of personal involvements, is often ignored in studies of personality, attitudes, and prejudice.

The procedures of the research are clearly described in a narrative fashion. Tables of basic data are included, but the authors do not rely upon statistical formulas or tables of data to carry the burden of communication. This is an interesting, readable, and valuable contribution to the literature on personality assessment.

Ralph M. Stogdill

Chase, Francis S. *Education Faces New Demands.* Pittsburgh, Pennsylvania: University of Pittsburgh Press, 1956. viii+49 pp. (Horace Mann Lecture, 1956).

Here again is an excellent brief analysis of how the world, and especially American society, have changed in the last decade or so. Also Mr. Chase presents an excellent series of the necessary things to do if we would bring school education abreast of its responsibilities in the changed environment. So far, so good; the problem is how are these things to be done? How can we be free men with "liberated" minds and build youth in this image so that good is multiplied and evil is decimated? Mr. Chase wants the curriculum re-examined, teacher education imbued with new high purpose, research and experimentation encouraged, the educational administrative pattern redesigned and upgraded. Again all these suggestions are good. Does Mr. Chase have any ideas about what to do now, any bold new hypotheses about approaches to the obvious job before us? He points to two years of experimentation in teacher education at the University of Chicago, and he implies, let us all go out and experiment similarly. Also, he says the way to get more research going is to use the research results we now have. He wants more teamwork in research, and he wants mass production methods in education abandoned. How do we get all things accomplished? First, we can count on present dissatisfaction with the schools as a starter, then we must develop some educational reformers, then a citizen's movement must be formed, political leaders must begin to think educationally, the public press must take an interest, and finally the economy must be capable of "supporting the advance." A nice treatise in educational homiletics; it is good, it is true! But where does it take us? There is no leverage on the problems, because Mr. Chase will not venture beyond intellectual analysis and profound good will.

NORMAN WOELFEL

GORDON, IRA J. *The Teacher as a Guidance Worker*. New York: Harper and Brothers, 1956. xi+350 pp.

This volume is more like a handbook on the material suggested by the subtitle, "Human Development Concepts and Their Application in the Classroom," than a detailed discussion of the teacher's rôle as a guidance worker. The survey characteristic of the book is evidenced by the author's statement, "This book is organized to be used in conjunction with actual first-hand experience in observing a child in a group setting through at least one semester's time" (page 11). This reviewer counted 54 lists on various topics. These lists, together with carefully interwoven quotations from many sources, give the book the appearance of a handbook in its format.

In Part I, the author briefly discusses the meaning of guidance, the rôle of the teacher, guidance and the curriculum, teacher qualifications for guidance work, and the scientific method for studying students. In the four chapters of Part II the author discusses "The Child Is a Growing Organism," "Understanding Community Forces," "Contributions of Peers to Self-Development," and "The Child's Self." The coverage is extensive; the treatment is sketchy.

In Part III, the author focuses attention upon three aspects of the teacher's rôle in guidance: as a group worker, a counselor, and a person engaged in action research. In the discussion of the teacher as a group worker, acumen is displayed in analyzing the forces involved in group work. Recognizing that "many professional counselors resist the notion of the teacher's functioning as a counselor" (page 265), the author discusses the teacher in this rôle. It would have been more accurate to distinguish between the teacher who uses some counseling techniques and the professional counselor who employs a vast variety of counseling procedures. The author's presentation of the teacher as an "action researcher" on guidance problems is less biased.

The book, together with the author's recommended readings, should stimulate the reader to examine more carefully the teacher's rôle as a guidance worker. The text seems to give comprehensive coverage of many topics, but actually this completeness lies only in the extensiveness of topics mentioned rather than in depth of topical treatment. HERMAN J. PETERS

DOUGLAS, MARY PEACOCK. *The Pupil Assistant in the School Library.* Chicago: American Library Association, 1957. xii+56 pp.

This booklet is designed to assist the school librarian who wishes or finds it necessary to use student assistants. Miss Douglas gives suggestions and outlines procedures useful in selecting, training, and supervising such students. She acknowledges the help such students may be to the library, and she emphasizes the values that the student gains by close contact with books, library procedures, and the public.

The discussion is very practical and is the first that this reviewer has seen designed for the purpose of assisting the librarian. Manuals for the use and guidance of the student assistant have long been available. Such practical matters are treated as the services which are within the abilities of student assistants, recruiting and selecting them, making out work schedules, planning for the better administration of the library through student help, and assisting the student to gain valuable growth experiences. Related activities, such as library and book clubs, are discussed.

Part II gives illustrations of work schedules, rating instruments, and so on, and quotes, in full, the text of the *Library Helper's Handbook* prepared for the pages in the school library of Raleigh, North Carolina. It also includes a very helpful bibliography. RUTH SEEGER

HALVERSON, PAUL M., editor. *Frontiers of Secondary Education I.* New York: Syracuse University Press, 1956. vi+22 pp. (Proceedings of the First Annual Conference on Secondary Education, School of Education and Division of the Summer Sessions, Syracuse University, 1956.)

This book is the first in a series planned to parallel a similar series "Frontiers in Elementary Education," volumes of which were published in 1954 and 1955. It consists of the numerous papers and lectures presented at the Summer Conference on Secondary Education held at Syracuse University. As the editor points out, the contents by no means cover the field but are planned to give ". . . only a sampling of areas which need study and discussion" (page iii). Six of the eleven writers deal with the more general, philosophical problems of secondary education. The others discuss problems connected with guidance services; programs for the mentally retarded, for reading improvement, for education of exceptional children; and general business education.

Many issues are raised. In this short review only a few can be little more than named. Several of the writers expressed concern about the ways in which secondary schools are using and extending the concept of freedom as it affects students and teachers. One area of freedom frequently violated by various lay individuals, groups, or governmental agencies is the making of decisions which in the light of training, background, and responsibility should be made by the teacher who is as much a professional as the doctor, lawyer, or engineer. Closely related are discussions of problems involved in developing moral values and at the same time providing creative experiences. One paper deals with teaching skill in critical thinking to adolescents. Also of great concern to several of the writers is, as they perceive it, the existence of great pressures in our schools toward conformity affecting both teacher and pupil.

A relatively new development in secondary education, as it is discussed by Ivan K. Garrison, is a program for the mentally retarded within the regular secondary school. Unless high schools have particularly stringent admission standards, they have enrolled "unlabeled" mentally retarded students. Mr. Garrison believes that special classes should be provided for them. Two authors disagree concerning programs planned for the gifted student. Harold Alberty questions the advisability of providing special programs for them, although William M. Cruickshank advocates special classes.

O. Richard Wessels favors a general business curriculum to serve all students; he argues that business as an institution of society has an increasing influence on every citizen's daily life. Margaret J. Early believes that reading in the secondary school is a frontier area which is largely unexplored. She describes problem areas which should be studied by a secondary-school staff before committing itself to a reading program. Guidance is described by W. J. Dipboye as a tool to help the young person adjust to life in a democratic society, but he warns that this does not mean that education should ". . . teach the maintenance of the *status quo*" (page 75).

While this set of papers and lectures does not give an integrated or complete account of secondary-school problems, the book is concerned with issues which are timely and significant. It is very stimulating and well worth study.

HAROLD R. PHELPS

YAUCH, WILBUR A.; BARTELS, MARTIN H.; and MORRIS, EMMET. *The Beginning Teacher*. New York: Henry Holt and Company, Inc., 1955. xii+339 pp.

As stated in the Preface, this book has been written to fill the gap between the student's senior year in college and his first few weeks as a beginning teacher. Parts I and II are devoted to discussions of topics which might very well be included in the last professional course before graduation or in conjunction with student teaching. These sections include help in securing a teaching position by pointing up types of jobs and helping the prospective teacher to evaluate himself to determine the job appropriate to his abilities and limitations. Certification and salaries are also given emphasis.

Part III, on the other hand, deals with the problems which may be faced by the beginning teacher. Emphasis here is given to the teacher's relationship with other teachers, with parents, within the community, and to the teacher's personal professional growth.

Each topic is discussed in an easy, readable manner. The authors use practical illustrations as they treat each topic, but at times the reviewer wishes that they had been a little less realistic in order not to discourage the reader.

Each chapter concludes with a summary and bibliography. Many questions heretofore unanswered are comprehensively dealt with. For the graduating Senior as well as the teacher on his first job, the contents should meet a real need.

Isabel Miller

Parker, William Riley. *The National Interest and Foreign Languages.* Rev. ed. Washington, D. C.: United States National Commission for UNESCO, Department of State, 1957. vi+133 pp.

This book is a storehouse of information about the past, present, and future status of foreign-language study in the United States. The author, who was chairman of a committee which made a three-year inquiry into the specific rôle that foreign languages and literatures should thereafter play in American life, is expertly qualified for the task. He declares

> Communication between peoples was always a problem, but, thanks to modern sciences and technology, it is today a problem involving more people, more often, and more speedily, than ever before in the annals of mankind. . . . Never have so many Americans encountered so much foreign speech with so little equipment for communication and so much depending upon communication. A sentence spoken in Paris or Rome or Moscow is read a few hours later in Chicago or Los Angeles, and whether accurately translated or not, who knows? And if literally translated, what connotations of nuances are lost, who knows? (pages 68–69).

Part I, which deals with the current situation, presents some startling facts: Fifty-six per cent of all public high schools in the United States offer no modern foreign language and no more than 14 per cent of the students in public high schools study foreign languages, yet one million two hundred and fifty thousand United States citizens (not including the military) traveled to foreign countries in 1954 (pages 13, 16, and 84). There are not that many students of modern languages in all the public and private secondary schools of our country. In a recent survey of eighteen nations, including the big four, it was found that students in the schools of the United States studied foreign languages the shortest amount of time—two years. In Russia foreign-language study is compulsory for six years, and in most of the European countries it is required for seven or eight years.

On the brighter side of the situation the author traces the rapid growth of foreign-language study in the elementary schools. In 1952 foreign languages were offered in the elementary schools of 89 communities and today in 357 communities (page 7). Air travel, exchange students, films, radio, the press, television (there are now 30 television stations teaching languages) are all contributing to the development of foreign-language study.

In Part III entitled "Tomorrow's Foreign Language Needs," the author emphasizes the great need for properly equipped instructors and more stringent requirements for teacher certification. Concerning the teachers he reports:

> Few of them speak correctly and fluently the language they teach, for the simple reason that they were never taught to do so and they have lacked the means to visit the country they are supposed to know all about (page 34).

As its title implies, this book was written in the interest not only of teachers and administrators, but of the nation at large.

EDWARD D. ALLEN

BORROWMAN, MERLE L. *The Liberal and Technical in Teacher Education: a Historical Survey of American Thought.* New York: Bureau of Publications, Teachers College, Columbia University, 1956. xvi+247 pp. (Teachers College Studies in Education).

A careful historical analysis of theory and practice in teacher education as it relates to the liberal and technical emphases is presented in this book. The importance of achieving a proper balance between these two phases of a teacher-education program is shown by the following statement:

> If, in their own professional education, teachers become acutely sensitive to the issues involved, and highly appreciative of both the liberal and technical functions of education, they are less apt to ignore either in their own teaching and in making educational policy (page vii).

After covering the problems in this area, the author divides his discussion into consideration of theory and practice in teacher education as follows: prior to 1865; 1865–95; 1895–1930; and 1930–52. In each of the chapters the diverse points of view and practices are well presented. The author points out that the early normal schools largely neglected general education; that some schools added general education in unrelated units; some related it to technical education and some did not; whereas, only recently has the emphasis been more sharply placed on carefully interrelated general education in efforts to bring to the teacher the best understanding and appreciation of the contents of the various disciplines and of their interrelationships.

This reviewer found the chapter on problem areas in the education of teachers very well presented. All of the book is written in a clear and interesting fashion. The reader should obtain a helpful perspective in his consideration of the problem of what is the best combination of experiences in general education in the preparation of an effective teacher.

EARL W. ANDERSON

BUREAU OF EDNL. & PSYL. RESEARCH LIBRARY
55

EDUCATIONAL
RESEARCH
BULLETIN : ERB

88

Vol. XXXVII, No. 4

COLLEGE OF EDUCATION
THE OHIO STATE UNIVERSITY

APRIL 9, 1958

EDUCATIONAL RESEARCH BULLETIN

(Entered in the United States Patent Office)

R. H. Eckelberry..............*Editor*
J. MacLatchy........*Assistant Editor*

PUBLISHED BY THE BUREAU OF EDUCATIONAL RESEARCH AND SERVICE, OHIO STATE UNIVERSITY, FOR THE SCHOOLS OF OHIO. EDITORIAL AND BUSINESS OFFICES, ROOM 203, COLLEGE OF EDUCATION, COLUMBUS, OHIO

ANNUAL SUBSCRIPTION ONE DOLLAR ($1) TO PERSONS LIVING OUTSIDE OHIO

CONTENTS

Lost—Students.. 85
George F. Wooster and W. Wallace Stover, *Ohio State University*

Can We Teach the High-School Student to Think?.......... 91
Cynthia A. Schuster, *Montana State University*

Newer Concepts of Administrative Leadership............. 101
W. Frederick Staub, *Ohio State University*

Readings.. 104
The Concept of Development: an Issue in the Study of Human Behavior, Professional Problems of Teachers, An Educational History of the American People, What Makes a College? a History of Bryn Mawr, The Elementary School Teacher at Work, Cubberley of Stanford: and His Contribution to American Education, The Teacher and the Child: Personal Interaction in the Classroom, School Problems in Human Relations, Vocational Counseling with the Physically Handicapped.

The Educational Research Bulletin is published monthly except during June, July, and August. Entered as Second-Class Matter, February 9, 1922, at the Post Office at Columbus, Ohio, under the Act of August 24, 1912. Accepted for mailing at specified rates of postage provided for in Section 1103, Act of October 3, 1917, authorized February 21, 1922.

Educational Research Bulletin
APRIL 9, 1958
Vol. XXXVII, No. 4

Lost—Students

By GEORGE F. WOOSTER AND W. WALLACE STOVER

Many administrators have commented on the high percentage of students who withdraw from a particular class between entrance to college and graduation; student personnel workers are concerned about the reasons which cause the students to withdraw. In spite of this concern reports of comparatively few studies are available. Two bulletins of the United States Office of Education, *College Student Mortality* by John H. McNeely and *Continuity of College Attendance* by Frederick J. Kelly—both published in 1937—contain reports of investigations based on nation-wide samplings. Hunter College[1] and DePauw University[2] have studied local conditions. Little information concerning local situations in other institutions is available.

A few years ago the writers made a study involving the students in one class in the College of Education, Ohio State University. The results showed among other facts that the class graduated in 1953 comprised about one-third of the students who entered the College four years before.[3] This percentage of loss resembled the percentages of student loss—between 40 per cent and 60 per cent—found in other studies. One disturbing fact in the Ohio State study was that a large number of the students who did not complete the program simply dropped out of college—disappeared—without giving a reason.

Our concern for the students who withdrew from the college giving no reason led us to undertake the study reported in this paper. The study has continued for several years. The students who entered the College of Education in the fall of 1952 have been followed through each successive quarter until the summer quarter of 1956. Through the records in the University registrar's office we have been able to identify the students who have transferred either to other colleges within the University or to other institutions, those who have been dismissed, and those who have voluntarily withdrawn from the University. Thus any student in this class who did not enroll in the College of Education for any given quarter was placed in one of three categories: transfer, dismissal, or not-in-school. No further check was made of the students who transferred to another college or to another institution, or who were dismissed. When a student failed to re-enroll in any quarter, if his reason was not known, he was placed in the category not-in-school. A student placed in this category for two successive quarters was classified as a dropout, and a follow-up check was made.

---

[1] Weintraub, Ruth G., and Sally, Ruth E. "Graduation Prospects of an Entering Freshman," *Journal of Educational Research*, XXXIX (October, 1945), pp. 116–26.

[2] Cummings, E. C. "Causes of Student Withdrawals at DePauw University," *School and Society*, LXX (September 3, 1949), pp. 152–53.

[3] Wooster, George F., and Stover, W. Wallace. "A Note on the Caliber of Education Graduates," EDUCATIONAL RESEARCH BULLETIN, XXXIII (September 15, 1954), pp. 155–56.

To each student classified as a dropout we sent a letter of inquiry, asking his reasons for withdrawal. We also asked him whether he had since attended another institution or planned to continue his education later. A return card was enclosed for the reply. If a reply to the original inquiry was not received, a second, and in many cases a third letter was sent. Eventually replies were received from 55 per cent of these former students.

The 1952 freshman class enrolled in the College of Education numbered 472—359 (76 per cent) were women, and 113 (24 per cent) were men. With few exceptions they were recent high-school graduates. Approximately 54 per cent of the group were graduated in the upper third of their high-school classes, 33 per cent in the middle third, and 13 per cent in the lower third. On the Ohio State Psychological Examination the mean percentile rank for the class was 49.6 (the median percentile rank was 51).

Half of the group came from cities with populations of one hundred thousand or more; 30 per cent came from smaller towns with populations ranging from one thousand to twenty-five thousand; for the remaining 20 per cent the data showed no particular pattern. The data on the size of family showed a family of four to be the median (with a mean of 4.83). Fathers' occupations were classified using the eleven occupational classes given in the United States census report of 1950. On the basis of the students' statements, 25 per cent of the fathers qualified for the classification of managers, officials, and proprietors. The remaining 75 per cent fell mainly into two classes—craftsmen, foremen, and the like; and professional, technical, and kindred workers. Such factors had little specific relationship to stated reasons for dropping out of school, however; they are presented primarily as items of interest and points for comparison.

AT THE end of the summer quarter, August, 1956, of the class that entered the College of Education of Ohio State University in September, 1952, there were 29 students (6 per cent) who were still enrolled in the College of Education and who had not yet been graduated. Of the original 472 students, 160 (34 per cent) had been granted degrees by Ohio State University. One hundred and twenty students graduated at the normally expected time, June, 1956; fourteen received their degrees in August, 1956; the remaining 26 students, because they took heavy loads and attended summer school, completed the degree requirements at an earlier date. The graduation dates and the number receiving degrees were:

	Number Graduated
June, 1955	1
August, 1955	3
December, 1955	9
March, 1956	13
June, 1956	120
August, 1956	14
Total	160

In direct contrast to graduation is dismissal from college. A comparatively small number of the students in the class were dismissed at some time during their academic careers—47 students, 10 per cent of the total group. Thirty-four were dismissed in the freshman year; eight in the sophomore year; three in the junior year; and one in the senior year. One student was reinstated in the College after being dismissed and then was dismissed a second time. All dismissals were for academic reasons.

Students who transferred to other colleges of the University comprised another small part of the class. Students who transferred to other universities were considered to be dropouts since at the time of leaving the College of Education, their plans were not known. Thirty-eight students made such a transfer within the University during the first year; twelve during the second year; three during the third year; and one during the fourth year. Of these 54 students, 11 per cent of the total class, approximately equal numbers transferred to the College of Agriculture (including the School of Home Economics), the College of Arts and Sciences, and the College of Commerce and Administration. Relatively few students transferred to the College of Engineering.

The largest segment of the 1952 entering class was the group of students who just dropped out of school, and for whom the College had no record of their reasons for not returning. During the freshman year 102 students dropped out; during the sophomore year, 44; during the junior year, 24; and during the senior year, 11. A total of 181 students, representing 39 per cent of the total class, simply disappeared.

Letters and follow-up letters were sent to each of the 181 former students. Replies were received from 99, a 55-per cent return. With few exceptions those who replied gave one major reason for not having returned to the College. The percentage of respondents giving each reason is listed in the following table:

Reason	Per Cent
Marriage	35
Transfer to another university	17
Dissatisfied (This includes dissatisfaction with classes, instructors, course content, living arrangements, etc.)	13
Personal reasons (This includes personal illness, illness within the family, pregnancy, husband or father transferred, etc.)	10
Military service	9
Financial	8
Work	6
Other	2

The individuals in each of these groups were then considered with respect to background data. In general, the pattern for the groups followed closely the pattern for the entire class, with reference to such factors as home town, father's occupation, number in family, and academic rating. There seemed to be no significant relationship between any of these factors and the reason for leaving school, with one possible exception. The students who left to enter military service had academic ratings lower than the class average. This group was not large enough, nor was there sufficient evidence to offer a basis for drawing any general conclusions. The question of a relationship between academic rating and entry into military service as a reason for leaving school, however, suggests an area for further investigation.

On the basis of the 55-per cent return to the letters of inquiry the major reasons for dropping out of school were (in order of frequency): marriage; transfer to another university; dissatisfaction with academic progress, classes, instructors, course content; personal reasons; military service; and financial. A check of the background data available (home town, father's occupation, size of family) showed no relationship between such factors and the various reasons given for leaving school. The withdrawal of these students, then, could not have been predicted in any routine fashion on the basis of information at hand.

COLLEGES are rightly concerned about the loss of students. Such concern naturally leads to a question of how that loss can be reduced. An obvious answer might seem to be "selective admission," but in practice it is not. As commonly used, selective admission refers to the use of high-school marks, recommendation of high-school teachers, and test scores. Such a procedure might serve to reduce losses due to dismissal for academic failure, but it probably would not be effective in reducing losses due to voluntary withdrawal. Most of those who just stop going to college, the "dropouts," are not of low academic rank; many of them are above average students. Further, such a selective admission procedure probably would not affect the number of transfers from one college to another within the University.

In looking for a way to reduce the over-all loss of students, there are three or four suggestions which seem to have especial value. Selective admission, with particular reference to high-school marks and test scores, has already been mentioned as a possible means of reducing the number of cases of dismissal for academic failure. The number of transfers from college to college within the University would appear to have implications for a basic-college type of organization, or perhaps a system of junior colleges offering one-year or two-year terminal programs. But with respect to this entire group of students, the dropouts, as well as the intra-university transfers and the dismissals, individual counseling would seem to be an even better possibility.

It must be acknowledged that individual counseling is expensive. The cost of providing an interview with a professional counselor for each high-school student who thinks he wants to go to college, or for each student being considered for admission by a college, might appear to be prohibitive. If the means could be found, however, such a counseling procedure might help to reduce other procedural expenses for the colleges and thus save both time and money for the individuals concerned. Since this matter should be of major concern to both high schools and colleges, some sort of co-operative counseling program might be developed.

The proposed interview is not to be thought of as simply an information, check-list type of interview. Rather, a full counseling interview with a professionally trained counselor holding the conference is proposed. A review of the reasons given for dropping out of college suggests that, in such a conference, consideration should be given to such items as reasons for going to college, ability to do college work, financial resources, and the individual's preferences of the college(s) to which application for admission might be made. In many cases there would be other questions of equal importance to be considered. It would seem, however, that if there were an honest appraisal of each prospective college student's circumstances relating to these items, and action taken on the basis of that appraisal, the situation with regard to lost students at any college might be vastly improved.

The writers do not intend to suggest that the high-school record or test scores should be excluded from use. Such information could be of great value to the skilled counselor holding these conferences. Nor do we forget the idea of one-year or two-year terminal programs offered by a basic college at a university or by junior colleges. While we recognize the potential values of programs of this type, a discussion of the issues involved is beyond the scope of the present paper.

In the final analysis, it must be recognized that, regardless of what is done or how well it is done, the college will have dismissals, transfers, and dropouts. Regardless of the explanations given for high mortality rates, students will continue to come and go. Investigations have shown some of the reasons for the coming and going of students, and we have proposed some ideas of what can be done to improve the situation. Perhaps college officials should be less concerned about finding additional reasons and explanations, and become more concerned with making sure that the university's responsibilities to its students are clearly defined and are effectively carried out.

[Vol. XXXVII, No. 4]

EDITOR'S NOTE:

The reader may notice that the sum of the numbers in the various groups is 471. One student died when a Junior.

Can We Teach the High-School Student to Think?

By CYNTHIA A. SCHUSTER

THIS paper is the result of co-operation between the Departments of Education and Philosophy at Washington State College. That co-operation was itself the result of conversations which revealed discontent shared by logicians and educators. We are all, it appears, discontented with what happens to the thinking ability of American young people during their high-school years. As a teacher of elementary logic, I have long been distressed by the fact that most of our Freshmen come to college imbued with false notions about the powers of human reason, with false conceptions of the nature of words, with false conceptions of the kind of knowledge given by the definitions of words, with false prejudices concerning scientific method and the status of the conclusions of science, and, worst of all, with firmly ingrained habits of fallacious thinking. I find that I spend much of the time of an introductory course in logic correcting errors picked up by the students before they get to college (and frequently reinforced by their college courses). Most of the rest of the time of the first college course in logic is spent instilling habits of clear thinking which could, I believe, be acquired in high school if the subject-matter of mathematics, the sciences, and English were presented with an eye to the development of correct habits of reasoning.

Zeno Katterly, dean of the School of Education at Washington State College, sympathetic with my complaints, gave me the opportunity to discuss the situation with a graduate seminar of school administrators. These discussions convinced me both of the difficulty and of the necessity of the reforms I shall propose. They further convinced me that many of our best young school administrators and teachers, recognizing the imperative need of the American citizen to be able to think clearly, are willing to experiment in order to find out what procedures most effectively increase the student's reasoning powers.

Let me hasten to assure the reader that I shall not propose that a course in logic be added to the high-school curriculum. Quite the contrary! If the reforms I suggest succeed, I shall find, I hope, that I have talked myself out of the job of teaching elementary logic in college, for that course will become obsolete, as it should. Is it not ridiculous, when you stop to think of it, that we introduce the high-school student to correct reasoning in mathematics, to the experimental method in the physical sciences, to reasoning about controversial political questions in his debate courses, and then send him to college to take a course in logic to find out correct methods of reasoning? It would be ridiculous, at any rate, if the high-school courses really taught the student how to reason correctly. At present the college course in introductory logic is necessary as a remedial course, painfully undoing the harm done to students' thinking powers in their high-school years. But, I repeat, if and when the goals I shall outline are attained, and the parts of logic pertinent to each of the subjects taught in high school are incorporated into the training in those subjects, the need for the remedial course in logic at the college level will disappear. And that will be a great advantage to both higher education and democracy.

I divide my discussion into three parts: fallacies, definitions, and scientific method. In each part I shall state briefly what knowledge and skill should be imparted, my reasons for thinking that most of our high schools are failing to impart this knowledge and skill, and shall then make tentative suggestions of methods which may succeed in imparting the given knowledge and skill. How effective the suggested procedures will prove to be, we can only know after they have been tried on a fairly large scale. Each educator, familiar with the local situation in his school, will have to judge which of these methods he can at present adopt, and each will, I hope, think of other procedures better adapted to his classroom situation.[1]

FALLACIES I discuss first, at some risk. This section may so discourage the reader, that he will read no farther. Let us recognize that perfection is unattainable, and set as our goal as much improvement as is humanly possible. My only contention, my only hope, is that an improved high-school training will develop increasingly clear awareness of the misleading character of the most common kinds of fallacious reasoning. Even so, this section may seem discouraging, because every suggestion I shall have to make presupposes a reform in the training of teachers. This training, however, can be acquired by a few hours hard work with a good logic textbook or by a short course in practical logic adapted to the needs of high-school teachers.[2]

---

[1] I should be most grateful for communications from teachers and administrators who have tried any of these experiments and can inform me about the results.

Let me list a few of the most common fallacies—fallacies which permeate the undisciplined thought of everyday discussion, of political addresses, of newspaper articles, journals, and even textbooks, despite the fact that the misleading character of these fallacies can easily be made clear to most ten-year-olds. I list these fallacies under their usual names, though in training young students to avoid them, it would probably be advisable to give them no names at all.

1. The fallacy of hasty generalization, or leaping to a general conclusion from one or few instances. The nearly universal failure to distinguish illustration from proof indicates how deeply entrenched is the habit of committing this fallacy. College teachers of Freshman English assure me that 95 per cent of our high-school graduates are incapable of distinguishing an example from a proof. What wonder, when teachers, textbooks, politicians, parents, and everyone who wants to win an argument habitually gives an illustration as if it were a proof of a general principle! A common variation of the fallacy of hasty generalization is the fallacy of false cause (*post hoc, ergo propter hoc*). Here a single instance of the simultaneous occurrence of two things, or of one following the other in rapid sequence, is taken as proof of a causal connection. This fallacy dominates American political life to an extent inexcusable in view of the amount of education the American voting public has received. To cite just one example: Despite considerable knowledge of the business cycle, a majority of voters always blame the political party in power when a depression occurs.
2. Fallacies of irrelevant appeal to emotion, such as, for instance, mud-slinging used as refutation of a program, or labeling with emotionally loaded labels. The quality of the political speeches which win elections is witness to the fact that the people have not formed the habit of distinguishing between factual evidence, mud, and soft soap. If anyone thinks that democracy is working as well as it could

---

[2] For those who wish to acquire the knowledge of fallacies, definitions, and scientific method necessary to carry out this program, I can only suggest that they read any standard elementary textbook in logic, selecting for themselves the material useful to them. So far as I know there are no textbooks written exactly for this purpose, but the teacher will have little difficulty, for instance, in skipping the Latin names of the fallacies, and in omitting details of probability calculation which are too subtle for use in high school. The simplest of these books, I believe, is Irving M. Copi, *Introduction to Logic* (Macmillan, 1950). Other books covering the same material are: Morris R. Cohen and Ernest Nagel, *An Introduction to Logic and Scientific Method* (Harcourt, Brace, 1934); Max Black, *Critical Thinking: an Introduction to Logic and Scientific Method* (Prentice-Hall, 1946); Monroe C. Beardsley, *Thinking Straight* (2nd ed., Prentice-Hall, 1956).

in the United States, let him glance at the analysis of successful election techniques given in the article by Alistair Cooke, "The Cowboy and the City Slicker."[3]

3. Fallacies of shift of meaning (equivocations, ambiguities). Remarkable as it may seem, we are conditioning our young people to commit habitually two contradictory errors with regard to words. On the one hand, they are word-worshippers and definition-addicts, always arguing about "the true" or "the real" meaning of a word, and suckers for any argument which proves something "by definition" (though such proofs are almost always fallacious). On the other hand, they can easily be deceived by a fallacious argument which gives evidence concerning "socialism" in one meaning of that word, and then draws a conclusion concerning "socialism" in another meaning.
4. Fallacious syllogisms, like this one:

> All communists approve of socialized medicine.
> Norman Thomas approves of socialized medicine.
> Therefore, Norman Thomas is a communist.

A very large part of the art of clear thinking consists in habitual avoidance of these fallacies. How can we help our young people to move toward this goal? My first suggestion is simple to state, though enormously difficult to accomplish. It is that teachers know enough logic to enable them to spot each fallacy as it occurs, and can tirelessly direct the attention of children and adolescents to the sound character of sound reasoning and to the fallacious character of fallacious reasoning. An effective teacher will not only be able to teach the students how to avoid fallacious reasoning, but should communicate to them the desire to think straight—even something of the joy of clear thinking. He will judge when to mete out praise, when gentle correction, and when to indulge in banter or sarcasm. In one tone and another he will have to repeat hour by hour, day by day, and year by year, such comments as: "How do you like that! From two examples he jumps to the conclusion that it is always so"; "What makes you think all Brazilians are like the one you met?"; "I ask for a proof that *all* combustion requires oxygen, and you give me a report of one experiment in which oxygen was used up during combustion. How would you like it if I proved that weenies are always served with sauerkraut by showing you one meal of weenies and sauerkraut?"; "We asked you for reasons why you disapprove of

---

[3] *Manchester Guardian Weekly*, May 24, 1956, p. 12.

———, and all you have told us is how much you hate it!"; "So you're going to hang the dog by giving him a bad name!"

The "you might as well say" technique is sometimes effective. If students are confused by a tricky fallacy, like the fallacious syllogism just given "proving" that Norman Thomas is a communist since he approves something communists also approve, they may see its fallacious character if different subject-matter is presented in an argument with the same formal structure as the original one. In this case:

You might as well say that since
All dogs have four feet, and
My cat has four feet.
Therefore, my cat is a dog.

If this fails to work, try it again, sticking even closer to the words of the original fallacy:

You might as well say that since
All Americans approve of eating, and
The king of England approves of eating,
Therefore, the king of England is an American.

In the case of fallacies of hasty generalization, expert use of the "you might as well say" technique gradually develops a grasp of some parts of scientific method, namely, an awareness of the conditions under which a few observations establish a high probability for a general conclusion.

One final comment about syllogisms. It is to be deplored that many teachers, in both high schools and colleges, have the false notion that all good reasoning can be reduced to the patterns of valid syllogisms. Actually the syllogism is one of the least useful forms of reasoning. In valid syllogisms you almost never learn anything from the conclusion which you would not have to know in order to assert the premises as true. Take Aristotle's famous syllogism:

All men are mortal.
Socrates is a man.
Therefore, Socrates is mortal.

Beautifully valid! But obviously you cannot know that all men are mortal unless you know that each particular man, including Socrates, is mortal. Enlightening students about the uselessness of this kind of deduction may help to put them on their guard against the only common use of syllogistic reasoning in modern life, namely the abuse of the syllogism by deceptive propagandists. Fallacious syllogisms, like the one about Norman Thomas, occur frequently in the speeches of shyster politicians. Ability to recognize these as the fallacies they are is the only ability the future citizen needs in relation to the syllogism.

Debating, which is one opportunity to train students to avoid fallacies, is, I think, rarely used as well as it might be. Some textbooks in debating actually list many kinds of "induction," (some of which are correct rules of reasoning and some of which are tricks and fallacies), all as equally effective and legitimate methods of winning a debate. With proper guidance, and some training in exposing fallacies committed by the opponent team, the activity of debate could be made to contribute to the thinking powers and honesty of the debaters. Today, I fear, it too frequently has the very reverse effect. I recall hearing a man who had been a national high-school debate champion say: "Yes, we won every debate, and for each victory we lost our immortal rational souls in order to win it." There is something wrong with the training and standards of the judge if violating the rules of logic is necessary in order to win a debate. I am tempted here to digress to a topic way beyond the scope of this paper: the influence of teachers in reinforcing the all too common ideals of the life of successful salesmanship (no matter how bad the product sold) and of successful self-salesmanship (no matter how bad the self which is sold) and of successful persuasion (no matter how bad the argument which "wins" the conversation). But I restrain myself, and stick to the topic in hand.

Let me conclude this section with the admission that I see no short cuts to the goal of improving the student's ability to avoid fallacies. Adequate training in practical logic for teachers, and infinite patience in developing sound habits of thought is the long hard row we have to hoe. The only encouraging remark I can make is that the reforms I have here suggested are of such a sort that they can be instituted piecemeal, in bits, here and there. Every foot of that long row which is hoed will bear fruit.

THERE seems to be an unbelievable amount of confusion in the minds of both students and teachers on the nature of definitions, on the nature of language, and on the rôle of word symbols in clear thinking. Many educators, and many more laymen, confusedly demand that every specialist in every field find a way to express everything he knows in simple words of two syllables. Yet these same people vaguely feel that they have learned something about a new subject-matter when they have learned the definition of a new word. Rarely do we meet a sound grasp of the manner in which word symbols serve as tools for thinking, and of the danger of allowing the tool to lead the thinking. Because of this situation, I shall suggest that in this one branch of logic (theory of definition), some class hours be set aside for lessons and discussions of the nature of definition. These lessons might be given as part of the courses in English. In whatever manner they are taught, the student should be given both theory and practice until he easily distinguishes the following kinds of definitions:

1. Report definitions or dictionary definitions—these report common usage, and are not completely stated unless mention is made of the groups of people using the word in the meaning reported. The only kind of truth these definitions have is the truth of the report that certain groups at certain times have adopted certain conventions about the meanings of words. The conventions adopted are neither true nor false.
2. Stipulative definitions—these declare the intention of a speaker or writer to use a word in a given meaning during a given discussion. They are neither true nor false, and can be challenged only on the grounds that they are inconvenient. Adopting a stipulative definition is making a decision about the use of a word symbol—and like all decisions, it is neither true nor false.
   a. However, there is one bothersome kind of stipulative definition, adoption of which means *two* decisions. This is the *persuasive definition,* in which the value-connotations of either the *definiens* or the *definiendum* are such that value attitudes are expressed by the definition. Example: "Socialism is democracy carried courageously into the everyday world of earning one's living." Here we have not only the verbal decision concerning the meaning of the word, but also an expression of the value decision to praise socialism.

Ability to distinguish these kinds of definitions, to recognize in what sense, if any, a definition is true, would rescue those arguments and discussions which now bog down on disagreements concerning definitions. Nothing could be more ridiculous than arguments over definitions, nothing more disastrous for intelligent exchange of ideas than the common refusal to talk with someone who defines his words in an unconventional manner. A minimal dose of the logic of definition should show students that persuasive definitions, though neither true nor false, are illegitimate in argument. Basic clarity about the rôle of language in thought should enable disputants to get beyond verbal misunderstandings to find the real issues at stake (if there are any issues remaining when misunderstandings due to different uses of words have been cleared up).

If teachers fear that this added load of subject-matter to be taught to high-school classes will be a great burden, they may at least hope that this bit of teaching will be fun. My experience with college Freshmen (only five months older than high-school Seniors) is that no other part of the introductory philosophy course evokes such vociferous expressions of enthusiasm and gratitude from them. The poor students have evidently been suffering for years because they vaguely felt that they were intellectually tangled up in words, and they experience real joy when they get straightened out.

It is possible that harm is being done by the emphasis on definitions in the so-called "objective examination." When students are tested more frequently on definitions than on reasoning ability or comprehension, they seem to draw, half-consciously, the fallacious conclusion that there is great wisdom in definitions. It is unfortunate that questions on terminology lend themselves so readily to the true-false, multiple-choice type of examination. They are undoubtedly the questions which first spring to the mind of the harrassed teacher hurrying to make out a test. But better to omit definitions altogether than to overdo them until the students become superstitious word-worshippers.

To summarize: To straighten our young students out on the nature of definition and the rôle of definition in rational thought, I suggest: first, that we teach, probably in the high-school English courses, enough of the theory of definition to enable the student to distinguish the different kinds of definitions, and to use definitions properly; second, that we encourage all teachers at all times to point out what has been done in each context in which a word is defined, especially when discussions or formal debates are vitiated by persuasive definitions; and third, that we avoid giving examinations which overstress memorized definitions.

THE reforms needed in connection with the false notions high-school students pick up regarding the scientific method will, I believe, be relatively easy to attain. If science teachers and the authors of science textbooks become aware of the falseness of the following common beliefs, this situation will take care of itself. Errors repeated in classes and textbooks, leading students to misconceptions about scientific method are:

1. The belief that the deductive reasoning used in mathematics is the model after which we should pattern all reasoning. This is a seventeenth-century belief, refuted in the eighteenth century, and still repeated in the prefaces of many textbooks in mathematics. We are still conditioning our students to expect the clarity and certainty of mathematics in all branches of knowledge, although it has been known for two hundred years that the mathematical method of reasoning cannot be used unless you can find self-evident axioms to start from, and that these are to be found only in the science of pure mathematics.
2. The belief that the conclusions of the experimental sciences are known with certainty. In particular, it is usually taken for granted that science has proved with certainty at least some causal laws. This, of course, is false, and witnesses to false notions of the inductive methods of science.
3. The notion that science presupposes or proves determinism. The argument by which this error is defended is that science is always looking for causal regularities in the universe; hence the scientist is committed to the belief that everything is completely determined. "You might as well say" that if a person goes strawberry hunting, he is committed to the belief that everything in the world is strawberries.
4. The belief that the experimental method is the only method which can establish scientific conclusions.

To correct these errors we need, again, adequate training in logic and scientific method for our science teachers. However, the amount of training needed is minimal. Most teachers of high-school sciences will be able to get all they need from a few hours' study of the chapters on scientific method in any elementary logic book. When the teachers have equipped themselves to do the job, they may want to try the following suggestions:

1. Check through the textbooks in physics, chemistry, and biology marking the passages which declare or imply that experiments yield conclusions known with certainty, containing no probability element whatsoever, and never to be revised in the light of new data. Either reject the textbooks or warn students against them, giving, if possible, a proof that all experimentally established conclusions are probability conclusions. I hope it will be found that revisions of the text

will be easy, requiring very little re-writing. Actually, most of the errors in logic occur in prefaces.

2. Warn students against those rhetorical flourishes which declare that "asking questions of nature by means of experiments is the (or the only) scientific method." These rhetorical flourishes prejudice the young minds against the social sciences. It seems self-evident to them that there can be no scientific knowledge about anything which cannot be manipulated in the laboratory. They apply this prejudice, of course, only to the human sciences, never to astronomy.
3. Sacrifice two or three theorems in the geometry course, using the time saved for a discussion of the axioms, of the necessity of having axioms in order to use the method of reasoning, of the impossibility of finding axioms in any other field.
4. This matter of the axioms of geometry would seem to be well adapted to treatment by the Socratic method of teaching, which still remains the most effective method of developing minds (as distinguished from memories). After using the Socratic method to get the students to work out one of the simple theorems, put it to them: "A neat proof, what? Wouldn't it be terrific if we could prove everything we want to know the same way? Why can't we? What do you have to have in order to be able to prove things this way?" You will at first be disconcerted by irrelevant answers, such as "chalk," "a teacher who asks the right questions," "brains." But sooner or later, if you are an effective Socrates, someone will come up with "axioms." Catch the ball and do your "stuff" on the limitations of this method of reasoning because of the dearth of axioms.
5. Emphasize readings in the lives and adventures of great scientists, guiding the interest of the class so that students become concerned with how scientists found things out, and acquire contempt for the habit of memorizing half-understood theories without knowing what the evidence for the theories is, nor how high is the probability established by that evidence.
6. Encourage debaters to admit frankly when the evidence they cite establishes only a probability for their conclusions. We may look forward to the day, long hence, when politicians will actually lose votes if they pretend to know something with certainty.
7. Use examinations to emphasize understanding of scientific method and of the difference between inductive and deductive reasoning. Whether this can best be done by centralized control of examinations, or by better training of teachers in the art of making good examinations, I leave to professional educators to discover.

[*Continued on page 112*]

Newer Concepts of Administrative Leadership

By W. FREDERICK STAUB

NEWER concepts of administrative leadership was the topic of discussion chosen by sixteen faculty members from the disciplines of economics, education, fine arts, nursing, psychology, and sociology. They met in six round-table sessions from November, 1956, through April, 1957, as a part of the celebration of the fiftieth anniversary of the founding of the College of Education, Ohio State University.

Under the chairmanship of Roald F. Campbell, of the area of educational administration, the discussants decided to use material from the book, *Administrative Behavior in Education*, compiled by the National Conference of Professors of Educational Administration as background content for the discussion during the first three sessions.[1] As the material from this source was explored, several main lines of thought were developed, a summary of which with their implications, follows.

Administration is affected by both organizational and group-centered factors, by the objectives and more formal aspects of any enterprise as well as by the people who are engaged in its activities. An administrator does not function with optimum effectiveness if he uses either of these two factors exclusively as a guide to his behavior; he must find a suitable balance between the two. There are, however, other factors than these which affect an administrator's leadership behavior. His own personality and value structure, as well as the usual variables inherent in the situations which confront him, were recognized as dimensions in the administrative process.

Further research on the impact of situational demands on the administrative process appears to be needed especially when in the complex there are conflicting expectations about the nature of the administrator's rôle held by different groups with which he must work. It seems a virtual impossibility to please each group. The motivation of groups of divergent opinions by a desire to accomplish organizational goals would seem to be an area of leadership activities. Continued research effort needs to be directed toward determining the relationship between administrator behavior and organizational accomplishment.

---

[1] Edited by Roald F. Campbell and Russell T. Gregg (New York: Harper and Brothers, 1957). Three chapters were selected: "The Concept of Administration," by Eugene L. Belisle and Cyril G. Sargent; "A Paradigm for Research on Administrator Behavior," by Andrew W. Halpin; and "Toward a Theory of Administrative Behavior," by Daniel E. Griffiths.

Problems of conducting research in the social sciences were discussed. It was recognized that many difficulties are present. With the assessment of people's behavior for predictive purposes as a major goal, social-science research encounters problems of human variability. Even under experimental conditions, there arises the necessity to account for the dimension of values. The participants believed, however, that marked research progress is being made in the social sciences despite these complexities.

SINCE questions of research pervaded all sessions of the round-table group, an operating definition of theory was felt to be necessary. One was suggested by Mr. Seeman, and accepted by the other participants: Theory is a set of definitive and logically related concepts, both resting upon a set of assumptions and involving propositions having predictive utility.

A single theory of administration seemed to be an unrealistic goal. Rather, the group believed that multiple theories, in all probability from several disciplines in the social sciences, appeared more feasible. It was suggested that existing theories of individual behavior and the behavior of the individual interacting with others be taken as starting points in the effort to relate organizations and administration. Hypotheses about administrator behavior could then be made and tested for validation. When validated, these could become components of theories of administrator behavior. To make this a meaningful process, more precise categories of administrator behavior are needed, so that when hypotheses are validated as probable fact they can be grouped with reasonable exactness. This was seen to have particular implications for those concerned with the improvement of preparation programs for administrators.

For those who will be conducting research on administrator behavior, the discussants developed the following suggestions:

1. The social scientist must treat the person-being-researched as a participant and must be sensitive to the change which occurs in both of them as a result of the research process.
2. The methods of study which are dictated by the phenomenon of constant change are not natural-science methods but some other methods.

3. The "other methods," most crucially, imply that the investigator probably puts his own values into the research process by the questions he asks and other devices he uses.
4. The descriptive view of research, as against the view of research of people in constant interaction and change, often leads to a pre-occupation with small problems and wrong values.

One session was devoted to an analysis of problems associated with the selection and training of administrators. After a review of some of the selection procedures presently in use, suggestions were given for their continued development:

Use gross screening devices, and try to overcome the candidate's deficiencies by a flexible training program and selective placement.
In the selection of administrators consider more adequately the rôle of those administered in an enterprise.
Conduct longitudinal studies to show the relationship between selection criteria and administrator effectiveness.
Develop selection criteria by co-operative activity between the training institution and the field.
Study further the specialized requirements for different kinds of administrative positions.

Mr. Ralph Davis, of the area of business organization, discussed training programs, primarily in industry, for administrative personnel. These programs are designed to accomplish the major goals of broadening the view of those who have advanced through the ranks and strengthening skills in problem solving which will lead to better decision making. Specific program procedures often employed are the workshop approach, in which executives from diverse industries analyze specific cases to gain increased skill in using the scientific approach to problem solution, and brainstorming sessions, during which a permissive atmosphere is conducive to the consideration of the creative possibilities in the solution of problems. The implication of this discussion for educational administration, as seen by the participants, was that administrators need to develop greater skill in delegation and co-ordination, to permit time for long-range planning. Further, the educational administrator needs to foster, through effective communications and other processes, an atmosphere for the release of purposeful creativity.

The group, in its final session, considered some implications

[*Continued on page 112*]

READINGS

Harris, Dale B., editor. *The Concept of Development: an Issue in the Study of Human Behavior.* Minneapolis, Minnesota: University of Minnesota Press, 1957. x+287 pp.

It was fitting that the Institute of Child Welfare at Minnesota celebrate its thirty years of service and of John Anderson's direction therein by this symposium on development. Here in book form are the seventeen addresses by leading scholars from such diverse fields as psychology, history, biology and genetics, social work, anthropology, psychiatry and pediatrics, logic, and education.

All seem to proceed on the premise that development is an emergent phenomenon, that it is not a mere unrolling of the old but the creation of the genuinely new. As might be expected from the auspices, all the speakers agree that how an individual develops in one respect influences how he will develop in others. Thus development is necessarily a multi-disciplinary concern. But all the speakers agree, also, that it is dangerous to extrapolate from one discipline to the other. Amoeba, man, and the national state are all developmental phenomena—that is, they all display certain common formal characteristics. But that the national state develops according to the same laws as the amoeba is not therefore to be lightly assumed. Yet there may be substantive resemblances, and it is, therefore, well for students of development to be aware of what those in other disciplines are discovering about it.

This book helps greatly in that direction. Careful planning ensured that the several addresses complemented each other, with very little overlap. None is exactly popular in style but none seems pompous and overtechnical.

As I read, however, I tried to imagine myself an auditor. Only two or three of the addresses seemed to me to make good listening. Perhaps had I been there, had I heard and seen the speakers, I would have felt otherwise. It is certainly true that the addresses by those whom I know well and could imagine delivering them seemed the best from the aural standpoint. But I remain of the opinion that most of the speakers gave inadequate attention to how their talks would sound to an intelligent but heterogeneous audience.

Moreover, I had the impression that several of the speakers were speaking because they were asked to, not because of an inner compulsion to share certain thrilling outlooks. One of the speakers, whom I know well, would have been outraged if he had not been asked—not out of injured pride, for he is a fairly modest person, but because of his conviction that he had something to say that belonged in the symposium. His paper stood out for that reason. Most of the other addresses lacked a sense of urgency.

In sum, however, the intelligent layman will find here a fairly good overview of how scientists in many fields think about development.

HORACE B. ENGLISH

HUGGETT, ALBERT J., AND STINNETT, T. M. *Professional Problems of Teachers*. New York: Macmillan Company, 1956. ix+468 pp.

This book is written for college students who plan to enter teaching and for recent graduates who have begun the teaching career. Much of the content was synthesized from pamphlet materials which were issued by various professional organizations. The selected references indicate sources for further investigation.

One of the major themes is contained in the following statement:

> If teaching is to be regarded as a profession, the public must be convinced of its complex, highly skilled, critical nature. Teachers have a large part of the responsibility for convincing the public on this point: that their work is as essential to the welfare of society as that of physicians, dentists, lawyers, and engineers (page 28).

In addition to discussions on the professionalization of teaching, sections are included which deal with salary policies, teacher evaluation, retirement systems, continuing contract and tenure, working conditions, ethics, the teacher's rôle in administration and supervision, the teacher's rôle in community and public relations, professional organizations, professional standards, certification, and accreditation of teacher-education institutions.

A better title for this book would have been "professional information for teachers." The word, *problems*, indicates perplexing situations which need not occur if teachers are informed about their profession.

MARGARET VESEY

MEYER, ADOLPHE E. *An Educational History of the American People*. New York: McGraw-Hill Book Company, Inc., 1957. xx+444 pp. (McGraw-Hill Series in Education).

Since Mr. Meyer in his preface purports to provide an interpretation of history rather than a chronicle of events and directs the text to junior- and senior-college students, this review undertakes to examine his idea of history and the pedagogical characteristics of the book.

The view of history offered the student is from the mountain top. The vistas are to be wide and the horizons broad. As Meyer puts it,

> My aim in this book is to examine the great landmarks of American educational history. . . . I have stayed on the main road, and in spite of considerable temptation I have refrained from following the many side paths which for all their allurement, are of minor consequence (page ix).

In the main, he has been true to his dictum. However, he views with the eye of a falcon and at times sees the movement with considerable detail.

A second aspect of Meyer's idea of history is that educational history is social history. Development in education reflects the doings and un-doings of the small as well as the great, and the schemer as well as the dreamer in their political, economic, and cultural lives. Such an approach usually results in a tome of encyclopedic proportions, but Mr. Meyer was able to compress his story into 427 pages. His success, no doubt, will please the transient student. On the other hand, the political and economic aspects of educational development suffer. It seems they are reduced to oscillations between motives of altruism and greed which are eventually driven and directed by the force of need. A neat formula, perhaps a trifle too neat.

Mr. Meyer's book does not seem to have outstanding pedagogical features. Nevertheless, the following features are to be noted. The student will encounter many well-turned phrases such as: "Conducted thus on a gigantic chain-store scale, the monitorial method was also cheap, a feature which naturally did not detract in the slightest from its glitter" (page 127). Also he will have frequent recourse to his dictionary, for Meyer has written on the faith that college students are familiar with multisyllabic words of uncommon usage. Ample footnotes are provided for the illumination of the more strongly motivated reader and, since they are often touched with humor, for his enjoyment. Brief summaries at the end of each chapter and a complete résumé in the closing chapter are provided. The bibliographic note is a useful aside which gives something of a history of the writings in the history of education.

George S. Maccia

Meigs, Cornelia. *What Makes a College? a History of Bryn Mawr.* New York: Macmillan Company, 1956. x+277 pp.

An affection for Bryn Mawr College and for those who exercised leadership there since it was established in 1844 is revealed in this account; yet the author has achieved integrity and objectivity as she reports the successes and failures and evaluates the activities of those involved in its history. There is a delightful balance between narration, philosophy, and biography, as frequent analyses of the vision, ambitions, and co-ordinating qualities of the four presidents are presented.

The author begins with the establishment of the College, as provided for in the will of Joseph Taylor, and leads the reader through the presidencies of James E. Rhoades, M. Carey Thomas, Marion Edwards Park, and into the incumbency of Katharine Elisabeth McBride, the present president. An excellent discussion of the problems encountered by the administrative officers, staff, and students in their efforts to adapt the College requirements to the changing needs of the students and of society, without sacrificing fundamental values, is presented.

Three philosophical statements seem unusually well written. When discussing the problems early encountered in efforts to keep the program of Bryn Mawr closely in accord with the tenets of the Quaker religion, the author says: ". . . true education, with its wider contacts, moves steadily away from the sectarian belief which is so often the inspiration which has led to a college's foundation" (page 68).

In analyzing the values the students obtained at Bryn Mawr, she notes:

> In their zeal they sometimes go too far with certain ideas and criticisms, but there is among them a vigorous honesty of spirit that makes it certain that they cannot deceive themselves with error very long. Because, to carry on their academic work, they learn early to analyze, appraise and judge the worth and reliability of what is put before them, they come to grind their sense of criticism to a very sharp edge, even uncomfortably keen for ordinary purposes. It is not turned against their colleagues or their preceptors so much as it is turned against themselves, diminishing, for a time, their confidence in their own beliefs, their own abilities, their own destinies. It is part of their development that they learn at last to take self-criticism less severely and give themselves the benefit of a more optimistic doubt. Taking them all in all, while they are unexpected in a hundred individual ways, they are still to be counted upon as friendly, intelligent, original, vigorous of mind, ever on the move, seeking their own in the world of learning and the world of living, having so much in common that they can be remembered always with respect, wonder, and affection—as Them (page 237).

Still later, in discussing just what is the value of a college she states:

> . . . In a small college certain things are more easy to see than in a larger one, and here it would well seem that this which is at the heart of everything is an unspoken loyalty, an unshakable belief in the power of human learning, in the power of men's minds as a force as great as any that exists in a universe of infinite forces. Everyone who takes part in carrying on a college is aware of the necessity for such belief, of the duty of extending it further, of delivering it, whole and undiminished, to those who can bear it farther still. Yet few people ever speak of it, since it is far too difficult to capture in outward words (page 262).

This history of Bryn Mawr is similar in many ways to the histories of other good, privately supported, liberal-arts colleges. Persons interested in higher education, especially those concerned with privately supported or church-related colleges will find this book interesting and instructive. The style is appealing and the facts and ideas are well presented.

EARL W. ANDERSON

KYTE, GEORGE C. *The Elementary School Teacher at Work*. New York: Dryden Press, 1957. xii+530 pp.

The author has brought together extensive material which in his opinion is important for the constructive solution of problems in elementary-school programs. He reports representative material from basic elementary-education courses offered by 90 instructors in 86 colleges and universities in 36 states. He also includes illustrative material contributed by many colleagues with whom he has worked as a teacher and as curriculum consultant. The findings of philosophers, psychologists, and sociologists are presented, as significant resources for dealing with the problems of "change," in Part I, The Elementary School as an American Institution.

In Part II, Desirable Learning Experiences, more than two hundred pages are devoted to an elaboration of various aspects of curricular design which show promise for more effective elementary-school programs. From an extensive appraisal of state, county, and city courses of study he lists typical units, topics, and areas for kindergarten through eighth grade (pages 185–90). In his account of a "unit of work" the author states that

> . . . throughout the progress of the unit as well as in the culminating activities, opportunity must be provided for thinking, testing conclusions, evaluating efforts, and applying new skills. When final evaluation occurs, two specific results may be expected. First, the learning acquired should be applied in similar situations occurring thereafter. Second, new plans should evolve from the unit just completed (page 197).

The essential areas of learning—language arts, arithmetic, social studies, science, the fine arts, and health and physical education—are presented in terms of their various contributions to comprehensive programs as well as to integrated units of work within the total curriculum. Part III—Planning, Organization, and Management—carries extensive discussion of the procedural techniques which are necessary to productive classroom work. Democratic control and discipline receive constructive treatment in the final chapter of this section. In the fourth and final part, The Teacher in the Elementary School, the author succeeds in presenting the realities and responsibilities of teaching in a manner that points up the satisfactions and rewards of the profession.

Among the many valuable contributions of this book are the splendid pictures of meaningful learning experiences and the extensive bibliographies for each of the sixteen chapters.

MARY JANE LOOMIS

SEARS, JESSE B., AND HENDERSON, ADIN D. *Cubberley of Stanford: and His Contribution to American Education.* Stanford, California: Stanford University Press, 1957. xii+302 pp.

Before the end of 1958 it will be sixty years since Ellwood Patterson Cubberley was appointed to teach education courses at Stanford University. The whole idea of education courses in a university was unpopular in the faculty and President David Starr Jordan told the new appointee that if the subject did not win approval in three years it would be dropped. It was not dropped and Cubberley, who was offered a number of positions elsewhere and had in 1919 decided to leave, stayed at Stanford to become, successively, professor, department head, dean of the School of Education, and one of the most distinguished educators of his time.

The book under review is more than a life of Cubberley; it is also a survey of the study of education in American universities sixty years ago and of its development in the intervening time since. This provides a background for the biography, but it is valuable aside from that. It may be that too little credit is given to early beginnings at Michigan, Teachers College, and other universities, and to the work of Henry Barnard, G. Stanley Hall, W. N. Payne, and many other pioneers. It is true that there were few university textbooks in education, and this is important in regarding Cubberley who became a successful writer and editor of textbooks.

The first part of this book deals with Cubberley's education, marriage, first teaching, a city superintendency, and it carries the story to his appointment at Stanford (1898). The second part covers 170 pages and its six chapters treat of his first years at Stanford, his work in building the School of Education, his contributions to the history of education and school administration as fields of study, his work as school surveyor, investigator, consultant, and finally as a writer and editor of textbooks. The "Riverside Textbooks in Education," which he originated, planned, and edited, became a series of more than one hundred volumes. Part III on "building and reinvesting a fortune" is in some ways the most interesting section of this interesting book, partly perhaps because this is a topic not often treated in biographies of teachers.

The authors belonged to the circle of Cubberley's students and the senior author was his longtime associate on the Stanford faculty. They evidently regard him with veneration, but still their estimate of the revered leader seems fair. Comparisons with other great leaders in education in the United States would be inconclusive. The impressions which the reviewer gained from this book are, first, that of Cubberley's amazing, almost incredible, industry; second, that of great skill and judgment in planning the practicable next steps to be taken. The authors explain that he was not a speculative thinker, but he was not without a sort of obvious yet serviceable philosophy. The book, as we have intimated, is more than a biography; it is a contribution to one of the subjects to which Cubberley was devoted: American educational history.

H. G. GOOD

MOUSTAKAS, CLARK E. *The Teacher and the Child: Personal Interaction in the Classroom*. New York: McGraw-Hill Book Company, Inc., 1956. xiv+265 pp.

The underlying thesis of this book is that every child is an individual with a basic personality which is unique, and that only as his self is respected and encouraged does he achieve his learning potential. "Meaningless behavior" is meaningful to the individual, hence it needs to be understood by the teacher, not merely suppressed. The emotional life of a child begins very early; his feeling about his world and about himself are of central importance, so acceptable ways need to be provided for their expression. This is a concrete statement of the mental-health approach to education in our democracy.

Ninety-two elementary and secondary teachers in four schools in the Detroit area worked with the author (those within each school also worked as a group), studying more effective ways of relating themselves to children, some specializing on individual and others on group techniques. A large part of the book consists of concrete illustrations drawn from the notes and tape recordings made by these teachers. Each case was chosen to illustrate certain points and is discussed in tentative fashion by the author. The cases are particularly valuable at the kindergarten-primary level, but at the high-school level the only suggested techniques are a regular time for free discussion and an opportunity for individual conferences.

This book offers a challenge plus a range of practical suggestions. The author recognizes the difficulties in putting the latter into practice in many school situations. Some teachers will question whether it is possible to maintain a classroom learning situation while accepting feelings and trying not to punish the behavior described in some incidents. The danger that the problem children may become the "teacher's pets" is not wholly imaginary. However, the evidence demonstrates that this treatment usually (not always) brings results, while the old punishment cycle seldom did.

Running through the book, but not pointed up by the author, is evidence of the need for more effective co-operation between teachers and parents. Teachers' notes tell of parent conferences but seldom indicate any effective pooling of information or co-ordination of efforts. Since this was outside the book's purpose, it is perhaps an unfair criticism, though the paramount importance of the home in influencing a child's self-concept is scarcely debatable.

MARGARET WILLIS

COOK, LLOYD, AND COOK, ELAINE. *School Problems in Human Relations.* New York: McGraw-Hill Book Company, Inc., 1957. xii+292 pp.

Typical of a number of newer textbooks, this book is a case-study approach to human relations in the public-school setting. The authors state that "it seemed sensible to stress corrective education, to center on school problems and their solution" (page 21). Through the use of approximately fifty cases, the authors' approach is to provoke "an active learning process." The book is divided into three sections: Setting and Problem, Solving School Problems, and The Teacher-Leader Role.

The framework of the book is defined through illustrative cases. In the vein of contemporary analyses of human problems, the authors present two models that may be used in the solution of human-relations concerns.

Problems of the beginning teacher, room order, teacher method, teaching children who differ, issues in intergroup relations, mass media use and control are representative of the topics about which human-relations problems revolve through case studies. The authors stimulate the reader but they run into the usual block of giving some definitive solutions. Part of this, no doubt, stems from the difficulty inherent in case-study analysis and emphasized by the authors, "In this style of teaching, one must keep in close touch with a classroom group. What is to be done tomorrow is likely to depend on how things go today" (page 64). Thus the problems are provocative but not directional in helping the reader solve similar problems.

The teacher-leader rôle is the theme of the last three chapters. This section should prove interesting not only to teachers but also to school administrators. The authors discuss change within the on-going social system in a community to which one belongs when he takes a job in the school system serving that community.

This book should prove useful for education classes and in-service education groups to act as a supplementary base for initiating ideas in looking at focal points in studying school problems in human relations. As the authors indicate, the decision for action resides in the individuals responsible for the improvement of human relations. HERMAN J. PETERS

LOFQUIST, LLOYD H. *Vocational Counseling with the Physically Handicapped.* New York: Appleton-Century-Crofts, Inc., 1957. xiv+384 pp.

This book deals with the problems of vocational counseling of disabled veterans in a hospital setting. The author, an associate professor of psychology at the University of Minnesota, spent fifteen years as chief of the Vocational Counseling Service at the Veterans' Administration Hospital in Minneapolis. The book reflects not only a broad background of practical experience, but also an intimate knowledge of the rapidly expanding literature in this field.

Roughly half of the contents of the book is devoted to the fundamental principles and practices of vocational counseling. Prominent among the subjects discussed are the need for an analysis of rehabilitation counseling, responsibilities of the rehabilitation counselor, effective interpersonal relationships, relationship with other services, the counseling interview, testing, diagnosis, and theory.

The other half of the book is devoted to specific disability areas. Following a discussion of factors common to several disability areas and reasons for their selection, six disability areas are dealt with in considerable detail. These are, the diabetic, the amputee, the heart patient, the hypertensive, the paraplegic, the cancer patient, and the skin patient. Under the discussion of each disability, consideration is given to such items as problems presented by the condition, medical information for the counselor, questions to be resolved by the physician, counseling considerations, illustrative history, and summary of test data.

A brief treatment of other disability areas is presented in Appendix A. Included are the blind and visually handicapped, the deaf and hard-of-hearing, the patient with pulmonary tuberculosis, the psychiatric patient, the seizure patient, and the patient with arthritis. Also included in the appendixes are sample forms used in counseling, an outline for an in-service training program, a glossary of medical terms, and an excellent bibliography.

The subject-matter of the book is well organized and carefully documented. The principles and practices set forth appear to represent modern thinking in rehabilitation. While the book is focused upon the rehabilitation problems of disabled veterans in hospitals, it contains much material applicable to other types of rehabilitation counseling. It represents a significant contribution to the literature on rehabilitation. HERSCHEL W. NISONGER

Can We Teach the High-School Student to Think?

[*Continued from page 100*]

WHAT I have been proposing is that if our high schools are to prepare students for the critical thinking required by a democratic community, there must be repetition throughout the high-school years of the question, "How do you know?" This question, "How do you know?" is the basic question of epistemology. May Noah Webster protect us from using six-syllable words like *epistemology* with our growing adolescents, but let us ingrain the habit of critical thinking by the constant repetition of the epistemological question, "How do you know?" and let us see to it that high-school teachers are prepared to show why bad or inadequate answers to this question are bad or inadequate answers. The program I am suggesting is vast, but every small bit of it successfully realized by individual teachers will be an asset.

[Vol. XXXVII, No. 4]

Newer Concepts of Administrative Leadership

[*Continued from page 103*]

of its round-table discussions applicable to administration viewed broadly:

> Many more data are needed about groups in which behaviors are related, to supplement the already existing information about the individual. Systematic information about how the individual relates to groups would extend understanding of the problem of situational variance.
>
> It is important to know more about the relationship of personality structure and the individual's acceptance or rejection of social structure, defined broadly.
>
> Since such dimensions of group achievement as productivity represent too narrow a base, research is needed further to illuminate the nature of group achievement and its subtle components.

[Vol. XXXVII, No. 4]

BUREAU OF EDUCATIONAL RESEARCH LIBRARY
55

EDUCATIONAL RESEARCH BULLETIN : ERB

BUREAU OF EDNL. & RESEARCH LIBRARY

Vol. XXXVII, No. 5

COLLEGE OF EDUCATION
THE OHIO STATE UNIVERSITY

MAY 14, 1958

EDUCATIONAL RESEARCH BULLETIN

(Entered in the United States Patent Office)

R. H. ECKELBERRY..............*Editor*
J. MACLATCHY........*Assistant Editor*

PUBLISHED BY THE BUREAU OF EDUCATIONAL RESEARCH AND SERVICE, OHIO STATE UNIVERSITY, FOR THE SCHOOLS OF OHIO. EDITORIAL AND BUSINESS OFFICES, ROOM 203, COLLEGE OF EDUCATION, COLUMBUS, OHIO

ANNUAL SUBSCRIPTION ONE DOLLAR ($1) TO PERSONS LIVING OUTSIDE OHIO

CONTENTS

Placement Testing in English and Mathematics at Ohio State University 113
FRANK R. PETERS, *Ohio State University*

Some Observations on Sign Language........................ 120
BEN M. SCHOWE, JR., *Ohio School for the Deaf*

Conflicts between Personal and Social Values: Significance for Public Education.................................. 125
DOUGLAS S. WARD, *Miami University*

Design for a Non-Credit Workshop in Industrial Arts...... 131
ROBERT W. HAWS, *Ohio State University*

Editorial Comment.. 134

Books to Improve College Reading Skill: a Review Essay.... 135
JOHN R. KINZER, *Ohio State University*

Readings 137
Public Education in America: a First Course, Encouraging Scientific Talent, High School Teaching.

THE EDUCATIONAL RESEARCH BULLETIN is published monthly except during June, July, and August. Entered as Second-Class Matter, February 9, 1922, at the Post Office at Columbus, Ohio, under the Act of August 24, 1912. Accepted for mailing at specified rates of postage provided for in Section 1103, Act of October 3, 1917, authorized February 21, 1922.

Educational Research Bulletin

MAY 14, 1958
Vol. XXXVII, No. 5

Placement Testing in English and Mathematics at Ohio State University

By FRANK R. PETERS

THE program of placement tests in mathematics and English at Ohio State University has been reviewed and revised during the past year.[1] The following paper tells briefly the direction of the changes, describes the 1957 mathematics placement tests, and reports the performance and placement of the freshman class during the fall quarter.

The reasons for placement programs are well recognized. The transition from high school to college creates some difficult problems for each student. The members of a typical freshman class come from a number of different high schools. Consequently, they differ among themselves in their readiness and ability to undertake college work. In mathematics and English, for example, some students are prepared to start advanced work immediately; others need additional study before undertaking regular college courses.

A placement program should be designed to identify such differences so that each student may be placed at the level where he will profit most. It is a waste of time, money, and human resources for the student to undertake a course which he cannot master. It is equally wasteful for him to take a course which is comprised of matters which he has already mastered. If appropriate placement can be made, such waste can be reduced.

There are practical limits to placement programs. This is especially true in our present system of higher education. Effective placement depends upon two conditions: a known and well-defined sequence of studies, and some way of placing students in that sequence at levels suited to their preparation. The great diversification of college curriculums limits the fulfillment of the first condition. The administrative difficulties of placing students except at quarter or semester intervals sharply limits the fulfillment of the second condition. If a student is almost, but not quite, ready to undertake the second quarter of a sequence, he usually must retake all of the first-quarter course even though much of the work is review for him. In English and mathematics at Ohio State the first condition is sufficiently fulfilled to enable some differential placement.

---

[1] The Departments of English and Mathematics and the University Counseling and Testing Center of Ohio State University have jointly taken the responsibility for the development of this program.

ALL Ohio State students are required to complete the first-year English sequence in composition and reading (English 416, 417, 418). The English placement test is designed to determine whether the student is prepared to undertake the first or second course of this sequence. If his ability (as measured by the test) is high, he is placed in English 417 and granted credit for English 416. In addition, he is given the opportunity to earn immediate credit for English 417 by writing an essay examination offered by the English Department. On the other hand, if from a student's performance on the initial test it appears extremely doubtful that he can successfully master English 416, he is required to take English 400, a course in which the elements of composition are intensively reviewed. This course carries an extra fee and adds to the hours required for graduation.

The present placement-testing program in English has been in effect for a number of years.[2] The test currently used has been markedly effective in placing students, so far as we can tell from class performance. The test, however, does not directly reflect the tasks presented in the freshman English sequence, composition and reading, since it consists largely of items testing knowledge of formal rules of grammar, and the meaning and spelling of words out of context. In developing the new test, therefore, we are changing to a new form of item, one which more nearly presents the student with the kinds of problems in mechanics, grammar, and rhetoric which he must master in his actual reading and writing.[3] The new test is patterned after the General Educational Development Test One, "Correctness and Effectiveness of Expression," devised by the United States Armed Forces Institute, and is presently being given to freshman classes on an experimental basis. In addition, in 1958 each student will be required to write a short theme as a part of his placement test.

---

[2] *See* Frank M. Fletcher, Jr., and William H. Hildreth, "The Evaluation of an English Placement Test," EDUCATIONAL RESEARCH BULLETIN, XXVIII (January 19, 1949), pp. 7–17, 27–28.

[3] For a more detailed description of the first-year English sequence and a sample of items similar to those being developed for the placement test, *see* the pamphlet *Freshman English at the Ohio State University*. This pamphlet is available in limited supply from the Department of English, Ohio State University, Columbus 10, Ohio.

THE placement problem in mathematics is more complex than that in English. First of all, a majority of Ohio State students have no college mathematics in their programs. In addition, mathematics courses for students of engineering and for students in the College of Arts and Sciences are not the same. The only uniform requirement now applying to all students is that they meet certain minimum requirements in arithmetic and elementary high-school algebra.[4] In general, this requirement is based on the principle that certain minimal competence is necessary for dealing with quantitative concepts and problems encountered in fields other than mathematics or the physical sciences.

The mathematics placement tests, in their earlier form, consisted of two parts. Part I was designed to identify students who were unable to handle relatively simple problems in arithmetic and elementary algebra. If the student's score was very low on Part I, he was required to take the review course in mathematics fundamentals (Math. 400). Like English 400, this course carries an extra fee and increases the hours required for graduation. Part II was designed to determine whether students whose curriculum included college mathematics were sufficiently advanced to undertake the first quarter course in college mathematics (Math. 416 or 421). For this purpose, problems in more advanced high-school algebra were used. If such students scored low on Part II, they were required to take an intensive review course in high-school algebra (Math. 401) before being allowed to register for college courses in mathematics.[5]

Although the prior test effectively identified students who needed additional preparatory work, it did not recognize those students whose preparation would qualify them to move directly into more advanced courses. In 1955–56, however, a group of engineering students whose placement-test scores were very high were invited to take a specially prepared proficiency examination. Of 104 students who took this examination, 28 were granted proficiency credit for the first course in the engineering mathematics sequence (Math. 421).[6] Five of these students were also granted credit for the second course (Math. 422), and assigned to a calculus course (Math. 440). Only five of the 28 students advanced in this experimental program received less than *A* or *B* in their advanced mathematics course. One student received a *D* and four received *C*. This special program was repeated in 1956–57, when 25 engineering students were placed directly in Math. 422, and 3 were placed in Math. 440.

---

[4] This requirement is made by the member colleges of the University. Only in the last few years has it been made uniform for all the colleges.

[5] For a more detailed description of freshman mathematics and the placement tests, *see* the pamphlet *Freshman Mathematics at the Ohio State University*. It is available in limited supply from the Department of Mathematics, Ohio State University, Columbus 10, Ohio.

With this history it was decided that the mathematics placement test should be revised so that decisions about both unpreparedness and proficiency could be made. It was necessary that such a revised test sample a broader range of problems and consequently be longer and more difficult. A longer and more difficult examination, however, would not tell us anything additional about the student who needed Math. 400; consequently the examination was split. One form (G-2) was essentially similar to Part I of the prior test. Students whose planned programs did not include college mathematics were given G-2 only. If the student correctly answered fewer than 15 of the 33 arithmetic and elementary algebra problems included, he was required to add Math. 400 to his program. A score of 15 or higher excused the student from this additional requirement. All students whose college program required mathematics and the students who planned to elect a college mathematics course were given the alternate form, G-3. This examination, although it included some of the items from G-2, consisted primarily of algebra problems, among these a number of items like those encountered in advanced high-school algebra and first quarter college algebra. If a student answered fewer than 23 of 50 items correctly, he was assigned to Math. 401, the review course for students needing college mathematics. The student who scored 40 or above was granted credit for Math. 421. If the student's score was very low, his paper was rescored on the very elementary items to determine whether he should be assigned to Math. 400.[7]

---

[6] Four other students scored high enough to earn proficiency credit but they elected to take the first course anyway.

[7] Differences in the two first courses in college mathematics (416 in the College of Arts and Sciences and 421 in the College of Engineering) made it difficult to use the examination for proficiency in both. This year Arts College students who received scores of 40 or more on test G-3 were given proficiency credit in Math. 421 and assigned to Math. 422. Courses 416 and 421 are undergoing revision and next year both courses will include topics from algebra and trigonometry. In subsequent years it is expected that the placement test will include some trigonometry and that proficiency credit can be granted in either 421 or 416.

Those students who scored 40 or higher on G-3 (proficiency in Math. 421) were given another examination on the fundamentals of trigonometry (G-4). If the student's score on this examination was sufficiently high, he was placed in the third course in the engineering-mathematics sequence (Math. 440) and was given credit for both Math. 421 and 422.

Finally, an hour-long test in mathematics reasoning (G-1) was given to all entering students. The results of this test will be used in studying the success of students in mathematics and related fields and in testing new items for future mathematics placement tests.

PERHAPS the most difficult problem in any placement program is that of judging the level of performance necessary for undertaking one course rather than another, or the quality of performance which is sufficient to warrant proficiency credit. In short, how does one set cutting scores? We need not explore this complex problem here except to reaffirm the fact that, whatever evidence one uses, the setting of critical scores, like the assigning of marks, is at best a matter of informed judgment.

For the English test the proficiency score was set in 1950 at the 89th-percentile level of performance. The critical score, the score below which students are required to take English 400, was set at the 15th percentile, using this same class as the normative group. The premise was then that the top 12 per cent of entrants were sufficiently prepared to undertake English 417, while the lowest 15 per cent of incoming students would need additional help before undertaking the first course, 416. This judgment was based on the experience of the English Department with other freshman classes.

In setting cutting scores for the new mathematics tests several sources of evidence were examined. The critical score on G-2, the score below which all students are required to take Math. 400, was set to approximate the score on the former mathematics placement test. Since the balance of the tests was markedly changed, however, other evidence was needed to set cutting scores on those tests. For this purpose G-3 was given as a part of the final examination to Spring Quarter classes in Math. 401 and 421, and G-4 was similarly given to classes in Math. 422. The critical score on G-3, the score below which students are required to take Math. 401 before taking regular college mathematics courses, was set at about the level of performance of students receiving *E* in Math. 421. The proficiency score, the score above which students could be granted proficiency credit for 421, was set at approximately the mean test performance level of *B* students in Math. 421. On G-4 the proficiency score was set at the mean performance level of all students completing Math. 422 who were tested.

TABLE I

THE PERCENTAGE DISTRIBUTION OF THE RATINGS ON THE ENGLISH PLACEMENT TEST MADE BY THE FRESHMEN IN THE FALL OF 1957

Course	Number	Per Cent
(1)	(2)	(3)
English 400........	713	16.2
English 416........	3,112	70.8
English 417........	573	13.0
English 418........	....*	....
Total............	4,398	100.0

* Fourteen students tried for proficiency out of English 417. Four of them were given proficiency credit for English 417.

TABLE II

THE PERCENTAGE DISTRIBUTION OF THE RATINGS ON THE MATHEMATICS PLACEMENT TESTS MADE BY THE FRESHMEN IN THE FALL OF 1957

Course	Number	Per Cent*	Course	Number	Per Cent*
(1)	(2)	(3)	(1)	(2)	(3)
Non-Mathematics Students†			Mathematics Students‡		
Required to take Math. 400§.....	1,167	25.5	Math. 400§.......	216	4.7
Excused from Math. 400......	1,063	23.3	Math. 401........	1,008	22.1
			Math. 416-421....	1,029	22.5
			Math. 422........	74	1.6
			Math. 440........	11	0.2
			Total..........	4,568	100.0

* Percentages of the total number of Freshmen tested.

† A student whose college program as planned did not include courses in mathematics.

‡ A student whose college program included courses in mathematics.

§ The total number of students (non-mathematics and mathematics) placed in Math. 400 was 1,383; that is, 30 per cent of those tested.

THERE were over forty-five hundred Freshmen who took the English and mathematics placement tests in the fall of 1957. Table I shows the ratings of the students who took the English placement classified by their test performance. A similar classification of the Freshmen who took the mathematics placement test is given in Table II.

Of the 4,398 students who took the English placement test, 16.2 per cent (713 students) were placed in English 400. A substantially higher percentage of students (30 per cent) were placed in Math. 400. In addition, 1,008 students planning to take college mathematics were placed in Math. 401. On the other side of the scale, 573 students (13 per cent) received a proficiency rating and were assigned to English 417 and 85 students (1.8 per cent) received proficiency placement in mathematics. Eleven of the latter 85 placed out of both Math. 421 and 422.

These results raise several issues which we can only suggest. First, we view as of utmost importance the fact that so many students were placed in advanced courses and received proficiency credit. If we assume that these placements were not often in error, this represents a great saving of time both for the staff and the students and makes possible potentially greater achievement on the part of these students. Could more students be advanced? This is a question which we need to explore. But we know that some of these students will fail to make the grade in the advanced course whereas they might have succeeded if they had started with the first course. This is the cost of advancement which must be weighed against the fact that many other students, if placed in the first course, would face problems they had already mastered. Consequently, we would be wasting time and inviting boredom.

The other extreme, the large number of students who seem to need additional instruction before undertaking the first college courses also creates serious problems. Are the first courses too difficult? Certainly, few of the faculty involved would agree to this assertion. Can a better way to give help to these students be found than to charge them a quarter's time (and a nominal fee) and the staff a substantial teaching load? Such questions are illustrative, not exhaustive, of issues which generate out of the general problem of transition from high school to college.

The placement program, in this university, is an attempt to deal with the obvious fact that this transition is of different magnitude and kind for different students. In the subject areas of mathematics and English this program can, if successful, make the gap manageable for students, both those who might otherwise find the new work too easy or others who might find it too difficult.

Some Observations on Sign Language

By BEN M. SCHOWE, JR.

"OH, so you are a teacher at the deaf school? You don't talk on your hands any more up there, do you?" My face must have shown some shock of surprise for the speaker went on after a brief pause, "You teach the children to talk and read the lips, isn't that it?" By the time we had reached our turns to get auto license plates I had explained how things were at our school. It turned out that the man whom I had been talking with was a physician. I thought to myself, "That fellow should know more than to ask me a question as he did . . . on the other hand, perhaps even a physician can be a layman as far as teaching the deaf is concerned."

It is true that most people have been told much about the way deaf children can be taught to talk and read the lips. They seldom hear that sign language exists in all schools for deaf children. In spite of the fact that sign language is suppressed in many schools because it is believed to prevent a deaf child from learning to speak and from becoming a good lip-reader, it still exists in every one of them.

Recently, we have begun to hear of increasingly more people who are studying the unsuppressible phenomenon of sign language. The late Sir Richard Paget,[1] an English philologist, with the help of others, went so far as to devise a

> . . . New Sign Language [which] should give to the young deaf child a grasp of verbal language, a greatly increased vocabulary and consequent increased power of normal thinking, together with a greater facility for reading and writing and for the still more difficult art of lip-reading. The process of learning the New Sign Language should be as effortless to both teacher and pupil as the acquisition of speech is to a hearing child. With its dependence on pantomimic signs, its use should also appreciably increase the child's power of observation and description.[2]

---

[1] Sir Richard Paget is the author of the books *Human Speech: Some Observations, Experiments, and Conclusions as to the Nature, Origin, Purpose and Possible Improvement of Human Speech* (New York: Harcourt, Brace and Company, 1930) and *This English* (London: Kegan Paul, Trench, Trubner and Company, Ltd., 1935).

[2] Paget, Sir Richard. *The Children's Vocabulary of the New Sign Language. Notes for Teachers.* London: Wellcome Foundation Ltd., no date given, pp. 3–4. Besides this booklet, there is a manual describing 900 signs, four film strips showing 160 static signs, and a motion picture showing 330 signs. Inquiries for purchase of this material should be addressed to Phonetics Department, University College, Gower Street, London, W. C. 1. The Visual Aids Laboratory at Ohio State University has all of these but the motion pictures.

Another Englishman, Kenneth W. Hodgson, author of an excellent book *The Deaf and Their Problems* has this to say,

> . . . to give a small deaf child the spate of living language which catches up a hearing infant into the whirl of life is obviously extremely difficult. . . . systemized conventional signing in the early years . . . forms a secondary channel of communication, by-passing the obstacle of speech deficiency. . . . To repress such an auxiliary means of communication is mental cruelty, as serious as sealing the lips of a hearing child to stop him from talking. But if this temporary language of expediency is to be normally verbal, it must be taught.
>
> . . . the "New Sign Language," invented by Sir Richard Paget, the greatest living authority on human speech . . . [is a] most recent contribution to the problem of language for little deaf children [which] forms, if not the solution to the problem, at least a basis for research and experiment. . . . This dispute over teaching method has been an unprofitable business. Both sides in the "War of the Systems" have puffed up their case, flinging every argument, however unfit, into the firing-line, till the very causes have become hazy and half-forgotten. Now is the time for parley. An impartial inquiry may well stimulate progress and heal the bitterness among the critics of the schools.[3]

The fact that Paget and Hodgson are British, where schools are reputedly all purely "oral," gives proof that the interest in the possibilities of sign language as an educational tool is a strong one.

Lee Meyerson indicated that deaf children who learn to use sign language early in life demonstrate a clear superiority in learning to speak over the children who do not use the sign language in infancy. He found this to be true by matching a group of deaf children of deaf parents, who used sign language, with a group of deaf children whose parents were of normal hearing and did not use signs. He gave identical oral instruction to both groups and made tape recordings of their speech progress. He then asked experienced teachers of the deaf to grade the speech progress of all the children from the recordings. The achievement and progress in speech made by the children of deaf parents was better than that made by the children of non-signing hearing parents.[4]

---

[3] Hodgson, Kenneth W. *The Deaf and Their Problems: a Study in Special Education*. New York: Philosophical Library, Inc., 1954, pp. 340–41.

[4] Author of two articles in *Psychology of Exceptional Children and Youth*, edited by William M. Cruickshank. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1955. (Prentice-Hall Psychology Series).

A LINGUIST in Holland, Bernard T. Tervoort, wrote his doctoral thesis on the study of the structure of the sign language that deaf children used in communicating among themselves. While he was taking motion pictures of his eleven- to thirteen-year-old Dutch children talking among themselves and analyzing the syntax of their language, William C. Stokoe, Jr., a professor at Gallaudet College, was preparing a prospectus to make a similar study, "Structural Analysis of the Language of Signs," using deaf students of Gallaudet College. Mr. Tervoort's dissertation is not available to us at the moment but Mr. Stokoe's prospectus lists many uses of his proposed research. These applications ranged from "How can the grammar of signs be used to improve the user's speech and writing and understanding?" to "Sociologists as well as linguistic scientists . . . will welcome any results of scientific study of the language of signs, which is both an interesting symbol system and an unexplored social instrument." He mentions the use that psychologists, philosophers, logicians, and neurologists as well as educators might make of the data from such a study.

About the same time, and closely related to the thinking and work of Tervoort and of Stokoe, I was making a pilot-study observation of the sign communication of first-year pupils at the Ohio School for the Deaf whose parents were of normal hearing and did not use signs. Not needing the aid of motion pictures for observing the meager beginning sign language of the first-year children, I made notes and described attempts of four deaf boys to communicate with other children or adults over a period of a school year while under my observation.[5]

I was interested mostly in observing the first growth of a deaf child's spontaneous communication. It may be assumed that more knowledge of the nature of the growth of early sign language will show its true value as a tool in teaching deaf children. We may even be able to prove that sign language is a necessary developmental stage in the growth of language arts for the deaf child.

Several interesting facts and data supporting further intensive and prolonged observation of young deaf children resulted from this pilot study:

1. Young deaf children do not appear to communicate with each other as much as one might suppose.

---

[5] Schowe, Ben M., Jr. "Sign Language Development." 1955. A Master's thesis on file in the library of Ohio State University.

2. The spontaneous communication of these children does not seem to pattern itself after the vocabulary and speech training they receive in the classroom.
3. The children are able to convey meaning through sign language quite well when they do attempt to communicate.
4. Growth in sign language is an untutored development which receives nurture from association of first-year children with older children who, in turn, receive their skill in the language from the children before them.

One wonders how any system of language communication could prosper under such conditions of untutored growth. Among the suggestions for future observation growing out of this study, is one which calls for around-the-clock observation by a team of observers to obtain a more complete picture of spontaneous communication of these first-year children.

Signs were very usable despite their bastard origin and general neglect by educators for many years. There is indication they are a dynamic force in the development of the language of the deaf child of which educators should take advantage. Reasonably well-developed sign language can contribute to a better adjusted deaf child who is capable of greater academic achievement.

Finally, the study suggests ways in which further investigation can be carried out in a school. Curriculum adjustments might be warranted to take advantage of the natural sign language of the deaf in developing reading, writing, and finally, speech and lip-reading.

IN CHAPTERS dealing with history of education of deaf children, methods of language development, origin of sign language, and modern studies of educational methods, the study indicates much evidence that sign language needs to be studied. James L. Smith wrote, in 1902,

> . . . the . . . comparison . . . proves that congenitally deaf children, from two to four years under instruction in an atmosphere of signs, may use English freer from "mutisms" than an oral pupil taught ten years without signs.
>
> . . . .
>
> . . . signs, judiciously used, not only do not interfere with learning English, but even favor it.[6]

---

[6] Smith, James L. "The Abuse of the Sign-Language," *American Annals of the Deaf*, XLVII (March, 1902), pp. 175, 176.

Alexander Melville Bell pointed out in 1833 there was evidence that beginning with oral instruction "impedes the progress of the congenitally deaf."[7]

The hearing child's language development has been studied by many people. Nearly all of them recognize gestures as essential in the early stages of language development and some suggest that this stage is by-passed too rapidly. Reference to some of these authorities has been mentioned by Dorothea McCarthy in her studies of language development in children.[8] MacDonald Critchley, a neurologist, said of the training of young children, "Gestures, like speech, may therefore be regarded as a dynamic and living subject which has not achieved finality in respect of development."[9]

It is clear there is much we need to know of ways to teach deaf children and there are some ways we have forgotten about. Moreover, confining our study to one way to the exclusion of another is hardly professional or even intelligent.

It is difficult, at this time, to know of all the latest research that may be going on concerning the teaching of deaf children. There has never been any question about the existence of sign language. As a means of communication among adult deaf, sign language has proved to be without peer. The gratifying thing is that it appears, now, that sign language is going to be scientifically scrutinized and perhaps ways can be found to turn it into a positive and respectable teaching tool. [Vol. XXXVII, No. 5]

THE National Education Association is soon to distribute a report of its year-long study entitled "Finding and Educating the Academically Talented Student." The report will give the recommendations of the invitational conference of two hundred educators of which Mr. Conant was chairman:

1. A solid four-year high-school course of academic subjects
2. A rigorous counseling program
3. Provision within the regular high school for advanced work
4. Advanced work for talented students on lower grade levels

---

[7] *Upon a Method of Teaching Language to a Very Young Congenitally Deaf Child.* Washington, D.C.: Gibson Brothers, 1833.

[8] McCarthy, Dorothea A. *The Language Development of the Preschool Child.* Minneapolis, Minnesota: University of Minnesota Press, 1930 (Institute of Child Welfare, Monograph Series No. IV).

[9] Critchley, MacDonald. *The Language of Gesture.* London: Edward Arnold and Company, 1939, pp. 123–24.

Conflicts between Personal and Social Values: Significance for Public Education

By DOUGLAS S. WARD

THE following paper is intended to outline in tentative form some fragmentary ideas spawned by recent experience behind the Magnolia Curtain.[1] Discussions with B. J. Chandler (formerly a colleague at the University of Virginia and now Associate Professor of Education, Northwestern University) precipitated an examination of conflicts of personal-social values which confront not only segregationists and integrationists, but neutralists and bystanders who would prefer to be innocent and unaffected by the Supreme Court decision outlawing segregation in public schools. It is apparent that the problem of value conflicts also has implications for teachers, supervisors, principals, and superintendents who face these conflicts as they work in public schools on both sides of the Magnolia Curtain.

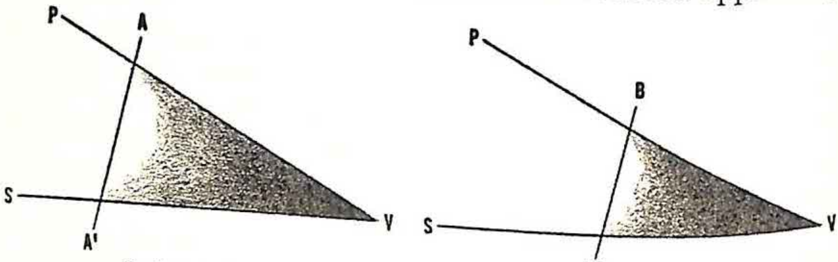
Competent teachers and other professional educational leaders possess personal and professional values which are sophisticated in the sense of being considered and generally defensible. The values related to education which are held by non-professionals who inhabit school and college communities are, in general, less considered and less defensible than those of professional educators. Values inherent in educational problems held by professional educators may be considered preferable to those held by non-professional groups in the community in which the educator practices his profession.

The two diagrams in Figure 1 crudely attempt to present an aspect of this relationship between values about education held by two professional educators and those held by non-professional people with whom each must continually interact. In each diagram the line *PV* indicates "personal values" held by the professional educator, and *SV* indicates "social values" held by non-professionals in the social situation in which he operates. *PV* is shown above *SV* because of the presumed superiority of the values held by professional educators. The divergence of the two lines is intended to represent professional situations in which varying degrees of value divergences are present. The shaded area which extends from the point where the lines *PV* and *SV* meet represents a condition presumed to be conducive to constructive interaction between the educator who holds the values indicated by the line *PV*, and the individuals and groups in a situation where values represented by *SV* prevail. The gradual lightening of the shaded area, as the distance from point *V* is increased and the gap between *PV* and *SV* widens, is intended to represent a progressively less favorable professional working situation.

---

[1] Magnolia Curtain: an invisible obstruction to intercommunication and mutual understanding between the American South and the rest of the U.S.A.

Differences between personal and social values in real-life situations encountered by educators are by no means undesirable; in fact, value differentials of this type are implicit in the leadership rôle of the educator, whether serving as teacher, administrator, or professor. Professional self-realization for the educator apparently requires a working situation in which there is a differential between his values and those of the individuals and groups of individuals with whom he interacts professionally.



Individual A

Individual B

Fig. 1. The two diagrams represent the personal and social value differentials of Individual A and Individual B.

Assuming that values differentials are normal in the educator's working situation, it is, nevertheless, apparent that differences between the educator's values and those of colleagues, administrators, or school boards to whom he is responsible cannot be increased indefinitely without risking serious impairment of his professional effectiveness. Indeed, a "breaking point" can be expected to develop as value differences between the educator and his community increase. The line *A-A'* in the left diagram represents for *A*, a given professional educator, the point of value divergence which is too great to permit him to continue effective professional work. The nature of the "breaking point" must be taken into consideration for it is assumed that a break will eventually take place if the value differential continues to increase.

It is assumed that for every individual increasing differences between personal and social values result eventually in a condition which is called a "critical gap." The two diagrams in Figure 1 represent this situation for two individuals. According to the diagrams, Individual A can operate effectively in situations characterized by greater value differences than can Individual B.

The "critical gap," if it occurs, follows a highly individualized pattern as the illustrations are intended to indicate. The darker areas of the two diagrams in Figure 1, indicating potentially constructive interaction, are of uncertain extent, but may be expected to give way to less favorable conditions—indicated by lighter areas—for professional effectiveness as accompanying value differences increase. When differences between personal and social values reach this point, constructive professional relationships can be maintained only with difficulty. Under such conditions conscious or subconscious incompatibility with the professional working situation may develop. The educator loses effectiveness in the professional situation when his values have become incompatible with those of his professional community and constructive interaction is no longer possible.

OBSERVATION of value-conflict situations involving interaction of individuals and one or another of the many subcultures with which they interact suggests that a "critical gap" may be reached without the individual being aware of it. For example, school administrators in Virginia, who still find it necessary to accept politically dictated interpretations of the Supreme Court ruling on school segregation, apparently do not recognize the values *impasse* which confronts them. One administrator apparently was able to forget his previously stated values when he was forced to accept direction from state school officials whose values differed sharply from his own. In such cases, the individual may rationalize a shift in the pattern of his life activities or in his professional objectives which takes him out of conflict with the social values which are in marked contrast with his own.

A superintendent may throw his energies into a state or local political campaign—a not uncommon practice in some states behind the Magnolia Curtain. A principal who has enjoyed an enviable professional reputation becomes a *raconteur*, much in demand for occasions where the "clown" rôle is to be played. By securing recognition on the fringes of his professional life he avoids confronting the critical-gap situation and compensates for lost professional status. Other individuals may throw their energies into raising orchids, refinishing antique furniture, or collecting minerals, butterflies, or blondes (presumably on a platonic basis). Genealogical studies, always popular behind the Magnolia Curtain, are reportedly being pursued with renewed vigor these days. Whatever the real or apparent adaptation to a critical value gap, the educator so confronted is unable to continue to work at his established level of professional effectiveness, although he may not be aware of it. He may attribute the spinning of his professional wheels to spring fever, the increased birth rate, or the absence of sufficient Federal aid to education.

Some educators react to potential or actual value gaps by shifting their own operating values so as to accentuate whatever differences may exist. The liberal may become a radical; the mild segregationist becomes a race bigot. The integrationist, faced by White Citizens Councils, may advocate the use of force to attain compliance with Supreme Court rulings, a position he had not taken previously; or a "modern" educator may become an "essentialist."

In school situations, the individual who reaches the "critical gap" point may react in any of the ways already noted or he may become a traditionalist or an extreme progressive. The superintendent or principal who can no longer manage the value differentials in his situation may become a tyrant, a "Milquetoast," or simply a *laissez faire* job-holder.

A superintendent whose educational values involve little consideration for those not bound for college finds his upper-class district transformed into a poorer working-class community. His unwillingness to provide leadership for a comprehensive school program for students of wide ability ranges and varied vocational goals constitutes a gap situation in critical values, for the community needs such programs. His adaptation to the value gap takes the form of meticulous attention to building maintenance, care of supplies, and the consequent neglect of professional leadership. (Some administrative behavior of this type may be entirely unrelated to values, and may reflect merely the identification of tasks which best suit the individual's talents.)

The fourth-grade teacher who finds it impossible to accommodate her conception of teaching to the demands of the fifth-grade teacher, the alleged incompetence of the third-grade teacher, and the expectations of parents may become compulsively protective of "her children." She thus seeks to isolate her charges from the influence of educational ideas differing from her own. If this maneuver is successful, the effective values differential is reduced and the value gap narrowed. The professional effectiveness of the teacher will also be lessened.

A coach who comes to his job with strongly held values which emphasize the all-round development of individuals may find a community which values only a winning team. This educator may reconstruct his values, accommodating gradually to those forced upon him by the community so that no critical value gap develops. He may, however, recognize the incompatibility of his own and the community's values and resign, to seek a post in another community where value differences will not obstruct constructive interaction.

This recognition, of the common dilemma of individuals holding values about a crucial social policy (such as segregation) which are "out of step" with their immediate culture, was a sobering experience, although the tentative nature of the present interpretation is admitted. A value gap is potentially as disturbing to the individuals represented by the line *SV* as it is to the professional person (*PV*). A respected professor reacted to the school segregation decision by joining a pro-segregation "hate group." A liberal Virginian of impeccable lineage put aside his humanitarian values and retired from the school board on which he had served with courage and distinction. Each faced a situation involving a critical gap and they were, in a sense, fellow sufferers.

EDUCATIONAL programs concerned with the reorientation of attitudes and values Kurt Lewin has likened to "a change in the culture."[2] Teachers and other educators may be expected to develop intellectually supported values about their professional functions which are ahead of those of both their professional public and many of their associates. Professional values require a measure of support from the immediate culture, yet the professional worker may find himself in an environment which does not provide the reinforcement needed.

The competent professional may be expected to thrive in situations which present no greater value differences than he is prepared to cope with in normal interaction, which is both the meat and dessert of his calling. The professional who is confronted by critical values differences that do not permit healthy interaction may well be in need of support for his own values from a source outside his normal sphere of professional activity. How may the professional educator attain support which is essential to the maintenance of his values? Are procedures for meeting this need a legitimate concern of teacher-education programs?

---

[2] Lewin, Kurt, and Grabbe, Paul. "Conduct, Knowledge, and Acceptance of New Values," *Journal of Social Issues*, I (August, 1945), p. 55.

The individual who mistakes normal differences in basic ideas within his school situation for a truly critical difference of values needs to identify the true facts of the situation, a process which may be fraught with difficulty. Among the most difficult cases, perhaps, is the educator who displays symptoms of having stumbled into a critical gap without being aware of it. (A special type of couch and a new species of analyst may be needed for summer-school and in-service programs of teacher education.)

If value gaps occur which are critical, in the sense referred to here, the planners of pre-service teacher education may have an obligation to promote directly an understanding of this social mechanism which probably occurs for a significant number of teachers, particularly in the early years of service. It would appear that beginning teachers are more likely to encounter critical-gap situations than are their well-integrated, experienced colleagues. (However, for administrators, the gravest dangers are apt to confront those longest in service, with long service in one situation.)

Warnings against "getting out of step" or "going too fast" are frequently issued to beginning teachers. Conflicts in basic ways of approaching the educational task are commonly discussed in programs of teacher education as "disadvantages" to be "overcome."

Practitioners engaged in programs of in-service teacher education often are confronted with the individual who is at the critical-gap stage and whose professional effectiveness is suffering. Such an individual needs help in analyzing the nature of the unique value conflicts in which he finds himself. If a critical gap is reached, the individual must restructure his values in order to re-establish satisfactory professional interaction with the social situation (and run the risk of lowering his professional sights), find another professional situation in which the value differences are not critical, or contrive some other (probably either rationalized or frankly escapist) solution of his problem. Indeed, the integrity of the educator as a person who faces such a situation depends upon the genuinely satisfactory adjustment to a potentially disintegrating experience. The first recourse mentioned may be facilitated by identifying particular aspects of the professional situation which involve value differences clearly short of the critical-gap stage, in terms of which the individual may redirect his activities. (This procedure may be entirely consistent with the individual's most deeply held values.) In so doing the social waste of an avoidable change in jobs, or the threat to personal integrity of struggling hopelessly in a situation where constructive professional work cannot be carried on, may be avoided. (Such restructuring, of course, can be carried to ludicrous extremes and might produce the superintendent who checks school supplies.)

Teacher-education institutions may need new personnel and facilities to provide an adequate program to deal with individuals who find themselves in situations of the types referred to here.

[Vol. XXXVII, No. 5]

Design for a Non-Credit Workshop in Industrial Arts

By ROBERT W. HAWS

THE College and Department of Education of Ohio State University receive many requests for services from the school districts of the state. These requests include workshops for credit and for non-credit, regular courses at an off-campus location, building surveys, on-call assistance to school district self-surveys, and the like. Since the granting of credit for courses given at an off-campus location involves many complicated maneuvers, it appears that the non-credit workshop under the leadership of a University staff member as a consultant is one of the better ways in which the College and Department may render these much-needed services to the school districts of Ohio. It was to provide an actual example of this kind of activity that the following article was prepared.

The idea of a workshop for the industrial-arts teachers in the city of Lakewood grew out of a series of meetings held during the academic year 1956–57. These meeetings were held under local leadership with the result that a number of problems were identified and listed for further study. Since many of these problems focused on the course offerings, the workshop took the form of curriculum revision and improvement with a written outline for each area of each grade level as the final outcome.

Early in the autumn of 1957 the writer was invited to meet with the Superintendent of Schools, the Director of Curriculum, the Director of Research and Guidance, and the Head of the Industrial Arts Department of the Lakewood high school for an exploratory meeting. At that time the activities of the previous year were reviewed, and the following plan of action was determined. It was agreed that the writer would serve as a consultant and would meet with all industrial-arts teachers once each month. Furthermore, the teachers agreed that they would hold a meeting between the visits made by the consultant for the purpose of carrying on committee assignments relative to the project. Reports from committees would be transmitted to the writer by the Director of Curriculum for review, criticism, and editing. They would then be returned to the committee through the Director of Curriculum for revision before presentation to the entire group for approval.

The matter of university credit did not enter into the situation. Since most of those involved already held graduate degrees, participation in the workshop carried credit toward salary increments on the professional-growth plan. This simplified the arrangements between the school and the consultant, thus avoiding any entanglements with university regulations concerning credits and registration.

For his services, the consultant received a flat *per diem* fee plus expenses for travel, lodging, and meals from the Board of Education of Lakewood. The number of meetings was left open since, at the outset, it was not possible to predict the exact number of meetings necessary to complete the project. The plan for each group meeting was that three sessions would be held each time the consultant came. On Friday, one meeting was held from 4:00 to 6:00 P.M. and another from 7:00 to 9:00 P.M. A third session met from 9:00 to 11:00 A.M. Saturday morning. During the hour between the two Friday meetings lunch was served in the high-school cafeteria.

In order to acquaint himself with the programs in the several schools the writer spent one day visiting each teacher in each junior and senior high school prior to the first meeting of the entire group at 4:00 P.M. This plan was deemed to be essential to gain an understanding of the schools and the facilities.

THE first meeting was devoted to exploratory discussions of the several problems already referred to and getting ideas before the group on how these problems might best be attacked. Toward the close of the evening meeting, committees were established to consider the curriculum problems peculiar to each area. For example, a committee was established to deal with the development of a curriculum in metalwork from Grade VII through XII. Each committee was composed of teachers from both the junior- and senior-high school levels. In this way it was thought some degree of articulation might be accomplished. The following committeees were formed, one to deal with a general statement of philosophy compatible with that previously adopted by the Board of Education, a second to deal with woodworking at all grade levels, a third to study and report on drawing, and a fourth to report on metalworking. In situations where only one teacher was involved as in auto mechanics, foundry, electricity, and machine-shop practice, no committee was set up but the instructor was requested to prepare and present his course outline. Saturday morning was devoted to an examination of course outlines previously prepared and a discussion of how to proceed in the interim before the next meeting two months later. This long period between meetings, was thought desirable due to Christmas vacation, other scheduled meetings, and the ending of the first semester.

During this period each committee met several times and prepared preliminary statements. The committee on philosophy had its statement of position ready and presented it to the group for modification and subsequent approval. This was considered a necessary first order of business to obtain a frame of reference to guide the other committees in their planning.

A second Saturday meeting was devoted to the development of a form for each area committee to use when preparing course outlines and making plans for interim meetings of the several committees before the next meeting with the writer.

The third meeting, devoted to a study of the junior-high school curriculum as now constituted, arrived at a series of basic-experience areas to be offered in each of the three schools. Some course outlines were reviewed, revised, and approved.

At the fourth meeting more course outlines were submitted, revised, and approved. Perhaps the significant achievement of

[*Continued on page 139*]

EDITORIAL COMMENT

A Highly Promising Project

One of the most important actions taken by the North Central Association of Colleges and Secondary Schools at its recent meeting was the initiation of a program designed to help high schools identify their superior students and motivate and guide them into college work. The plan will operate for two years under a grant of $174,000 from the Carnegie Corporation of New York. J. Ned Bryan, Jr., now director of the National Education Association project on the Identification and Education of the Academically Talented Pupil in the American Secondary School, will be director and Bruce Shertezer, director of guidance and personnel in the Indiana State Department of Public Instruction, will be associate director. Science Research Associates will assist in planning and will provide necessary materials.

The program will start with the selection of some fifty to seventy-four schools in the nineteen states served by the Association to serve as "pilot plants." Preference will be given to schools willing to carry on a pilot program for the two years of the project, assign the personnel necessary to carry it on effectively, supply such information as may be needed in the study, and share ideas and experiences with other participating schools.

Each pilot school will be asked to send a team comprising an administrator and a counselor or teacher to one of the five five-day workshops which will be held this summer. Five universities—Colorado, Michigan, Minnesota, Oklahoma, and Northwestern—will serve as host institutions to these workshops. Follow-up sessions of the workshops will be held next summer. Two hundred scholarships of $50 each will be available as contributions to subsistence and travel expenses for those attending the workshop sessions.

The participating schools will try to identify students with talents which indicate that they should go on to higher education. Plans of such students for college attendance will be studied in an effort to discover factors that are significant in their thinking about this matter. Special effort will be made to learn why some

[*Continued on page 140*]

Books to Improve College Reading Skill: A Review Essay

By JOHN R. KINZER

CARTER, HOMER L. J., and MCGINNIS, DOROTHY J. *Effective Reading for College Students.* New York: Dryden Press, Inc., 1957. xiv+354 pp.

DALLMAN, MARTHA, and SHERIDAN, ALMA. *Better Reading in College.* New York: Ronald Press Company, 1954. v+308 pp.

MILLER, LYLE L. *Increasing Reading Efficiency.* New York: Henry Holt and Company, 1956. vii+301 pp. (A teacher's manual is also available.)

DURING the past few years several self-help books have appeared which are directed toward the improvement of adult and college-level reading skills. This reviewer has chosen these three books as representative of the college level. Certain assumptions are made by the writers of these reading-improvement books; many of these assumptions are tacit and in some cases are not tenable.

One of the assumptions is that the college student desires to improve his reading skills. It is quite proper for a student to say that he desires to read well and study effectively, but counseling often reveals that this desire is not very strong and in many cases is completely lacking. A reading-improvement program that is not co-ordinated with counseling can only deal in the superficial and chiefly mechanical aspects of reading skills.

Other assumptions made by workbook writers are that a student is able to read but merely lacks speed, has a meager vocabulary, and lacks familiarity with organization of written materials.

Much has been said in reading-improvement workbooks on the topic "remembering." One sees there such admonitions as "when reading college assignments be on the watch for points that are worth remembering" (Dallman and Sheridan, page 221). This is a fine idea if one is familiar with the subject and knows what is worth remembering. The beginning student or the relatively inexperienced one cannot determine by a sheer effort of will to remember or even discover points that are worth remembering. The ability to remember is not a mechanical skill, but is a combination of skill and knowledge based on considerable experience.

"Critical reading" is a topic that is often considered in reading-improvement programs. One cannot be properly critical of anything until he knows something about it. Critical evaluation requires a mature system of values, attitudes, and knowledge. This is not a mechanical skill and is not something to be practiced from a workbook.

Reading-improvement programs are usually found in departments of psychology and education. This is a historical accident and is based on the fact that educators and psychologists have an interest in learning and habit formation as topics within their own disciplines.

It is the reviewer's opinion that the findings of psychologists and educators must eventually become useful in other subject-matter areas. The psychologist is interested in topics such as learning, remembering, and attitude formation, but someone else needs to apply those findings. The relationship between psychologist and English teacher, for example, is analogous to that which obtains between the physicist and the engineer. Reading is not a skill or even a group of skills learnable in isolation.

We are familiar with the generalization that "one learns to do by doing," but we do not take seriously the idea that "one learns to read by reading." No amount of meaningless exercise and mechanical drill can be a substitute for interesting excursions through many books. One learns to read rapidly by having a tremendous amount of reading to do. One learns to read and remember by having an interest in what he reads. I have always been amazed at the ease with which college boys remember girl friends' telephone numbers. I have been equally amazed at how easily they can forget the date of the War of 1812! This example should give the reading instructor some idea of the problem.

These books promise help in the improvement of reading. The Carter and McGinnis book covers too much territory and as a result is very disorganized. The book by Lyle L. Miller is limited but emphasizes, in my opinion, the wrong thing. He places entirely too much emphasis on trivia such as speed drills of perceptual material. The Dallman book has a virtue in that it contains good reading material; it also gives some techniques of vocabulary building based on wide reading.

I believe that the difficulty in teaching reading to adults and to college students is largely a matter of obtaining easy material of potential interest to persons of that age level. Concomitant with reading instruction must go counseling to help those people get a new orientation to adult values and attitudes.

READINGS

Books to Read

CRESSMAN, GEORGE R., and BENDA, HAROLD W. *Public Education in America: a First Course.* New York: Appleton-Century-Crofts, Inc., 1956. xiv+480 pp.

These authors have prepared in this volume a textbook which is not only useful in a "first course," but which can be a valuable reference work in advanced courses. Unlike many introductory textbooks in education, this book speaks a language which is directed at mature and intelligent students and contains none of the "primer talk" so often found in works developed for orientation purposes.

A second unusual and valuable feature of this book is its scope. Careful descriptions of school-finance problems (pages 85–106), organization of the public-education enterprise (pages 47–83), school-plant facility problems (pages 335–65), and other task areas take the reader well beyond the content of the usual introductory textbook and provide excellent bases for future studies in almost any segment of the education profession.

Each chapter is introduced with a one-page "preview" which gives "the student in statement, not outline, form a look at what is to come. The preview . . . sketches the broad pattern of the chapter" (page v). These previews are well done and serve to whet the appetite rather than to provide a ready-made substitute for reading the text. Each chapter concludes with a number of excellent questions and projects, a list of pertinent audio-visual aids, and a comprehensive selected bibliography which are well done and which add significantly to the value of the chapter.

The major problem with the book is its comprehensiveness. It would not seem fair to the content nor to the student to attempt to compress the material into a single quarter or semester course. It is undoubtedly true that many teacher-education curriculums would need to be changed materially if this textbook were to be utilized to its full potential in an introductory manner. In the opinion of this reviewer, such changes would be worth the effort and a course based upon a year's study of this volume plus related field experiences could remove much of the stigma from present-day introduction courses in education.

JOHN E. CORBALLY, JR.

COLE, CHARLES C., JR. *Encouraging Scientific Talent.* New York: College Entrance Examination Board, 1956. ix+259 pp.

This volume reports a study of the loss of talented persons from high school to college and of ways to encourage those who are more able to follow scientific study. The research was supported by the National Science

Foundation; it was based primarily on a questionnaire administered in connection with an aptitude test given to a nation-wide sample of high-school Seniors and Sophomores. In addition to the data gathered by the Educational Testing Service, other evidence was introduced into the report at many points.

Of the 59 items in the questionnaire, the first 20 concerned words and arithmetic. The remainder dealt with such matters as the size of the family of the respondent, the father's occupation and education, the college plans of the respondent's best friend, the nature of the high-school program being followed, the subjects preferred, career preferences, the contributions of high-school guidance to career choices, the need for scholarship help in college, reasons for going or not going to college, and factors affecting college choice.

The analysis of the questionnaire response when coupled with other evidence introduced in the report leads to several significant conclusions. Only a few can be cited here. Approximately two hundred thousand high-school graduates with college ability terminate their formal education with a high-school diploma; one-fourth of this group apparently have interest and aptitude in science. A significant portion of those with interest and aptitude would presumably continue with scientific pursuits if they could be identified and financial assistance provided. The loss of talented young women to science is proportionately greater than the loss of talented young men. Community and parental deterrents are significant factors in the decisions against going to college.

The report offers a number of recommendations, most of which are general in nature. No suggestions are offered as to the way in which "extensive federal and state legislation" for the benefit of science and mathematics teaching can be achieved. A nation-wide talent search to fill one hundred thousand proposed new scholarships to college is suggested with no apparent recognition of the relative inadequacy of presently available means of identification of worthy persons. It is unfortunate that the report passes over lightly the basis for a certain loss of talent: shortcomings of schools and colleges in both curriculum and method.

The report is significant to those who are seriously concerned with the rôle of science and engineering in our society. The new evidence obtained in the study is useful, and the report as a whole summarizes a broad array of fact and judgment, valuable alike to the scientist and the educator.

JOHN S. RICHARDSON

HANSEN, KENNETH H. *High School Teaching.* Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1957. x+421 pp.

This textbook in general methods of teaching in high school is addressed to the prospective teacher in training and the beginning teacher. Its specific purposes, as stated by the author, are:

. . . helping the teacher understand what secondary education in our society really means *to the high school students themselves*;
. . . helping to show the teachers how to use effective classroom teaching methods by applying known principles of human behavior and learning to specific classroom problems; and
. . . helping the teacher to understand his rôle as an advanced leader of youth in school and community (page iv).

The author attempts to achieve these purposes by means of 14 chapters in three parts dealing with: Understanding the Tasks of Secondary Education; Classroom Teaching; and Beyond Classroom Walls. Each chapter concludes with "topics for study, discussion, and report," and an excellent, briefly annotated bibliography.

The style is lucid and simple, but the treatment of the various problems of method is frequently sketchy and brief, often so brief as to raise some doubt as to its effectiveness.

For the most part, the author presents a "right of center" point of view with respect to the controversies in the field of method. He is inclined, in the opinion of this reviewer, to be somewhat pessimistic as to the possibilities of the beginning teacher going much beyond the *status quo* in bringing about desirable changes in procedure. This does not mean, however, that the teacher should not experiment for, "within the framework of even the rather traditional classroom" (page 289), it is possible to bring about significant improvement.

While this extremely readable, attractively designed and illustrated volume should prove of great value to the beginning teacher, it would be highly desirable for him to consult many other sources in his quest for better teaching procedures. To this conclusion the author would probably agree.

HAROLD ALBERTY

* * *

Design for a Non-Credit Workshop in Industrial Arts

[*Continued from page 133*]

this meeting was the development of a curiculum for a general shop at the high-school level to meet the needs of students who entered without industrial-arts credit or who wished to pursue some area of interest on an elective basis.

A fifth meeting has been arranged to edit the materials and plan for the publication of a curriculum bulletin to be placed in the hands of principals, counselors, and teachers of the school system.

As a result of this workshop experience the writer has reached some rather definite conclusions regarding the values to be derived from the type of workshop under consideration. These are:

The group was working on real problems which the members had isolated and expressed a desire and interest in solving.

These teachers were for the first time making an effort to articulate the work done in a single area from Grade VII through XII.

The quality and quantity of work done and the enthusiasm of the group were greater than that which one often meets in an organized campus class.

By bringing a whole department together, it was possible to adjust programs and promote understandings which additional summer courses on the part of one or more members of the group would never have effected.

[Vol. XXXVII, No. 5]

A Highly Promising Project

[*Continued from page 134*]

students of high ability have no plans for college attendance and what can be done to motivate them in this direction. The effect of non-school influences on college attendance will be studied and effort will be made to stimulate students, parents, and community groups to help increase college attendance by able young people.

The initiation of this project is highly encouraging for a number of reasons. The need for a larger percentage of the abler students to attend college has been pointed out so many times that it needs no discussion here. The problem is one of concern to both colleges and secondary schools, and both should co-operate in dealing with it. The North Central Association is an organization of 388 colleges and universities and 3,416 secondary schools and has a long history of co-operation between these two types of its member institutions. Moreover, the Association has high prestige with the secondary schools, colleges, and state departments of education of its region. It is therefore in an excellent position to carry out an undertaking of this kind. This is a highly promising project.

R. H. E.

BUREAU OF EDNL. & PSYL. RESEARCH
LIBRARY
55

EDUCATIONAL
RESEARCH
BULLETIN : ERB

BUREAU OF EDNL. & PSYL. RESEARCH
LIBRARY.

SEPTEMBER 10, 1958

COLLEGE OF EDUCATION
THE OHIO STATE UNIVERSITY

Vol. XXXVII, No. 6

EDUCATIONAL RESEARCH BULLETIN

(Entered in the United States Patent Office)

R. H. Eckelberry..............*Editor*

PUBLISHED BY THE BUREAU OF EDUCATIONAL RESEARCH AND SERVICE, OHIO STATE UNIVERSITY, FOR THE SCHOOLS OF OHIO. EDITORIAL AND BUSINESS OFFICES, ROOM 173, ARPS HALL, COLUMBUS 10, OHIO

ANNUAL SUBSCRIPTION ONE DOLLAR ($1) TO PERSONS LIVING OUTSIDE OHIO

CONTENTS

Integrating the Curriculum: a Review Essay............... 141
H. Gordon Hullfish, *Ohio State University*

A Co-ordinating Course in the History and Philosophy of Education........................ 152
Sister M. Theophane, C.C.V.I., *Incarnate Word College, Texas*

Some Trends in Teacher Education........................ 158
Shizuko N. Harry, *University of Utah*

Editorial Comment.................................. 161

Readings.. 164
The Story of Education: Philosophical and Historical Foundations; Scientific Serials: Characteristics and Lists of Most Cited Publications in Mathematics, Physics, Chemistry, Geology, Physiology, Botany, Zoology, and Entomology; "A Basic Book Collection for High Schools"; *The Audio-Visual Equipment Manual; School Health Program; More than Social Studies: a View of Social Learning in the Elementary School*

The Educational Research Bulletin is published monthly except during June, July, and August. Entered as Second-Class Matter, February 9, 1922, at the Post Office at Columbus, Ohio, under the Act of August 24, 1912. Accepted for mailing at specified rates of postage provided for in Section 1103, Act of October 3, 1917, authorized February 21, 1922.

Educational Research Bulletin
SEPTEMBER 10, 1958
Vol. XXXVII, No. 6

Integrating the Curriculum: A Review Essay

By H. GORDON HULLFISH

HENRY, NELSON B., editor. *The Integration of Educational Experiences.* Chicago: University of Chicago Press, 1958. xii+278 pp. (Fifty-seventh Yearbook of the National Society for the Study of Education, Part III).

THIS is a good book. The authors took their subject, not themselves, seriously; and, in consequence, while they probe in all earnestness and state a position with the firmness necessary to make a working hypothesis fruitful, they do not speak *ex cathedra*. What they have done is to provide the groundwork that will help others continue the probing they have started. Indeed, they invite this. The volume ends with these words:

> Perhaps the most disconcerting element in the integration of educational experience is that the task forever remains unfinished. Integration is a dynamic concept; it always represents an unfinished task. Perhaps this is why it seems to us such an important concept in educational planning; for education, properly conceived, is likewise always an unfinished task (page 263).

It is worthy of note, also, that the authors took the subject of integration seriously on yet another score. Books which are produced by committees often lack unity and are uneven in quality; they are also frequently colorless, because of the need for agreement which leads to neutral statement where strong pronouncement is needed. These authors, to reverse a phrase, prove no rule, but they are an exception. Each knows what the other has written and plays key ideas back and forth meaningfully.

When we look at the substance we find that the authors in

EDITOR'S NOTE: This paper was read at the meeting of the National Society for the Study of Education in Cleveland, Ohio, on March 29, 1958.

their initial conferences recognized that they were dealing with a much used concept, one so loaded with meaning that only by calling their shots with care would they be able to avoid ambiguous statements. They asked themselves, therefore, what, so far as education is concerned, should be the object of integration. They knew that the curriculum had often been; they knew further that, while an integrated curriculum might place heretofore unrelated subjects into new relationships, this could lead to little more than the substitution of one organization of knowledge for another. Perhaps they remembered also an earlier emphasis upon "correlated" subjects, when excitement ran through the school if a history teacher could call down the hall to an English teacher, "Yoo-hoo, I'm about to correlate." They have no objection to an interdisciplinary approach; indeed, they recognize that this approach is one means of facilitating an integration of educational experiences. What they emphasize is this: the individual has experience only when what he does is meaningful. It is within the experience of the active individual, then, that they find a meaning for integration which directs their writing. Their concern is to get those of us who teach to consider how we may create integrating experiences for our students. In their words, "*Our concern with integration . . . must be with the integrative process in which man engages as he strives to organize in meaningful fashion knowledge and experience which at first seem largely unrelated*" (page 22, italics the authors'). It is reassuring to find a group of educators remembering, as they focus on the provision of educational experiences, that it is the student who is being educated, and that this happens only as he is involved in integrating his experience.

The authors set forth philosophical and psychological bases to support their selection of this active, open-ended conception of *integrating* experiences as opposed to the passive, completed conceptions of the *integrated* curriculum. They then discuss the significance of their conception for the selection of educational aims and procedures, for curriculum organization and extraclass experiences, and for administrative organization and processes. They next describe programs at the elementary, secondary, and higher levels of education which have been initiated in recent years in an effort to offset the movements toward specialization and fragmentation which have divided knowledge into bits and pieces, while at the same time removing education more and more from a vital impact upon the lives of students. Each program is subjected to critical analysis, using the *integrating* concept as the probing instrument. A final section, titled simply "Implications," brings the authors back to where they started, to the struggle to keep the "integrating" experience separate from the "integrated" experience. They did not succeed in doing this throughout their writing, though theirs was a brave effort. They frankly admit that they confronted a difficulty they never entirely resolved, but it is surprising, nevertheless, to discover a maneuver, after their effort, which nearly loses them their case. They find a necessity of "a combination and interaction of the two" (page 257). The argument at this point is not convincing, perhaps because for two hundred and fifty pages the meaning of the integrating experience has been the central object of concern.

If I ended my brief synopsis of the substance of this writing with a personal comment, let me say that I did so at the invitation of the authors. In their opening chapter, after briefly stating the organizational plan of the book, they conclude: "Before reading Section IV . . . we hope that the reader will have reached some tentative conclusions of his own, because we are convinced that each student and each teacher must work out his own integration" (page 24). I did not need this invitation, but I was very glad to accept it.

IN MY more than thirty-five years of thinking about education I have, of course, reached a few tentative conclusions. While reading this volume I firmed up one of them: that no matter what trends in theory may suggest, nor how widely they seem to be accepted in educational writing, actual school practice continues much as before, the tug of habit making change a very slow matter, indeed. Here we have a volume in which the authors state openly though not blatantly that "in agreeing upon the importance of the integrating individual" they have "indicated their preference for the pragmatic philosophy." They recognize that an essential element in this philosophy is "tolerance of other philosophies and other integrations" (page 42). In general, the writing reveals that their statement of preference is more than a formality. At no point is this more evident than in the section where practices which promise to foster integrating experiences are described and analyzed. The number of practices they discovered, however, was not so large as to overwhelm them. Yet, if

I have been understanding what the more vocal critics of education are saying these days, they should have been swamped. Here were men, familiar with what is going on in our schools, as the critics generally are not, and who admittedly favor the pragmatic philosophy, unable to discover a plethora of practices to illustrate principles that stem from the thought of John Dewey, the man said to be responsible for starting public education on a degrading downgrade. The critics, in short, have been talking nonsense, for the most part. Of course our schools are not as good as they should be, nor is the culture as a whole. Of course some among us have too rapidly succumbed to the lure of fads; so, too, have many citizens. Of course schools have changed under the impact of new social needs; government, equally, has accepted new responsibilities for the same reason. But there are a host of reasons why these things are so. No single philosophy, or philosopher, is responsible. Apart from this, everyone close to education knows how nearly what happens in the classroom today resembles what has been happening in classrooms over long, long years. This writing did not set out to support this conclusion, nor did it have the purpose of casting doubt upon the accuracy of those critics who charge John Dewey with fathering all of the inadequacies they claim to discover in educational practice. Yet it does each of these things and, fortunately, does so in a manner that may introduce more of sense into discussions of education.

A FURTHER conviction I have long held is that our awareness of the fact that thinking cannot go on in a vacuum leads us to believe that thinking follows the possession of all of the facts that will enter into it. We then turn to the curriculum to provide the basic materials students will later use in their thinking, failing to note that if these materials are really to be basic in thought they are best gained as they enter into thinking and help carry it forward. Sometimes, of course, we use this belief to rationalize our unwillingness to permit young people to think for themselves, either because we are honestly fearful that they will make serious mistakes or because we are authoritarian in our relationships with them. I recall a college president who solemnly pronounced that it was nonsense to have students discuss controversial issues before they were Juniors in college, since, as he put it, they would not know enough before then to get the right answers. More generally, however, what is at issue is simply the belief that there are right answers to problems which can be sustained only if one has all of the facts in hand that the expert has put together in their proper relationships. And here I recall the occasion when a young boy said to his very wise mother that he wanted to know about sex. Her reply was: "Good. Father is the scientist in this family and we'll ask him when he comes home." The boy replied: "I don't want to know that much." He was saying simply that his interest in sex was quite different from the scholarly interest of his father. He wanted knowledge, but he did not want to be overwhelmed by it. The father, however, had he been asked, would have felt inadequate, both as a father and as a scientist, had he provided what to him would have been less than a complete answer. Teachers know something about his dilemma; students know what concerned the boy.

I suggested earlier that the authors admitted to a failure to resolve a conflict between the integrated experience (which means the experience of the older person, in this instance) and the integrating experience (which means, in this context, the experience of the student). Had they explored other facets of their basic thesis that each individual has to do his own integrating they might have been tempted to tease out the meaning of something Dewey said in *The Child and the Curriculum* more than fifty years ago. I find it so relevant that I want to quote it at length.

> Every study or subject thus has two aspects: one for the scientist as a scientist; the other for the teacher as a teacher. These two aspects are in no sense opposed or conflicting. But neither are they immediately identical. For the scientist, the subject-matter represents simply a given body of truth to be employed in locating new problems, instituting new researches, and carrying them through to a verified outcome. . . . The problem of the teacher is a different one. As a teacher he is not concerned with adding new facts to the science he teaches; in propounding new hypotheses or in verifying them. He is concerned with the subject-matter of the science as *representing a given stage and phase of the development of experience*. His problem is that of inducing a vital and personal experiencing.[1]

What do we find in this statement for our purposes here, apart from noting that the concept of the integrating experience has been around a long time? One thing is clear. That which the teacher properly respects as knowledge is not, in its status as knowledge which the teacher holds in the integrated character which the specialist has given it, knowledge for the student. This is so no matter how many times it may be presented to him. We may assure students of the importance of knowledge until we are weary but what we accept as knowledge has to *become* knowledge for them, and this it will do only as it enters meaningfully into their efforts to make sense out of something that concerns them. This statement implies no lack of respect for knowledge; rather, it suggests that respect for knowledge is a natural consequence of discovering that hitherto unknown facts and principles bring light to areas of darkness, introduce order into areas of confusion. John Dewey contended that "the first approach to any subject in school, if thought is to be aroused and not words acquired, should be as unscholastic as possible," adding that were we to notice "the sort of occupations that interest and engage activity in ordinary life" we would discover that "they give the pupils something to do, not something to learn; and the doing is of such a nature as to demand thinking, or the intentional noting of connections; learning naturally results."[2]

---

[1] Chicago: University of Chicago Press, 1902, pp. 29–30.

It would not be fair to suggest that these pragmatically oriented authors would disagree with these contentions of Dewey. Yet they do say that

> without disagreeing with the importance of developing competence in problem-solving, there is a danger in this approach that important aspects of knowledge will be omitted and that superficial solutions will be obtained. It may be that basic skills and knowledge can be acquired better through purposeful activity and inquiry as exemplified by the problem-solving approach, but it seems to many individuals that these skills and this knowledge must first be consciously identified and given a definite place in the curriculum. Integration and integrative activity cannot proceed until the student has something to integrate (page 215).

This conclusion misses the whole point of the integrating activity to which they address themselves. The student always has something to integrate—the experience he has had up to the point that a teacher confronts him. The teacher's problem is to locate what he may use of that experience in order to arouse the interest of the student (and this is not the same thing as saying "in order to locate his interests") in exploring areas of knowledge the teacher holds to be important, not because the teacher wants him to do so but because the student sees in this activity the promise of finding something to help him solve a problem that lies just far enough beyond the edge of what he already knows to make his struggle for knowledge meaningful. Learning is the reconstruction of experience; and this reconstruction the learner has to undertake for himself. It is never the repetition of someone else's experience, however integrated the latter may be. Again to turn to Dewey, we find that the essential feature of the pragmatic method of knowing "is to maintain the continuity of knowing with an activity which purposely modifies the environment." And to this he adds: "Knowledge is not just something which we are now conscious of, but consists of the dispositions we consciously use in understanding what now happens."

---

[2] *Democracy and Education: an Introduction to the Philosophy of Education.* New York: Macmillan Company, 1916, p. 181.

We all know, of course, to paraphrase Dewey freely, that method, content, and purpose are inseparable, method being a way of using material to achieve an end. This is realized by the authors and the effort is made throughout to show how they are related. Yet the pressure of the materials of the organized curriculum (the integrated materials) keeps raising its ugly head and, when it does, the authors forget that the philosophy which they have found good defines thinking as "the method of an educative experience" and considers "the essentials of method" to be "identical with the essentials of reflection."[3]

They have made the mistake, it seems to me, of identifying Dewey's view with a confining formal structure of problem-solving that is often currently associated with giving the needs of students such a directive force in curriculum planning that the teacher is denied the freedom a teacher must have if he is to do his proper work of directing the immature to ever higher levels of an effective maturity. If these were the inevitable consequences of Dewey's outlook, they should be avoided and his guidance should be suspect, indeed. But they are not. Dewey did not leave the teacher helpless, dependent upon the revealed needs or interests of students. He stressed continuity in experience, as this book does, but he especially emphasized the need to differentiate between experience which possesses continuity but leads individuals only to low levels of development and experience which "arouses curiosity, strengthens initiative, and sets up desires and purposes that are sufficiently intense to carry a person over dead places in the future." He goes a step further, however. He maintains, first, that it is "the business of the educator to see in what direction an experience is heading" and, second, that "there is no point in his being more mature if, instead of using his greater insight to help organize the conditions of the experience of the immature, he throws away his insight." He believes the educator must "take the moving force of an experience into account so as to judge and direct it on the ground of what it is moving into."[4]

---

[3] *Ibid.*, pp. 400, 192.

This represents no soft pedagogy, nor does it suggest a disparagement of knowledge. It gives knowledge work to do because it will contribute to the moving force of experience and it gives the teacher responsibility to arouse curiosity, strengthen initiative, and set up directing desires and purposes of such intensity that they will keep the student from going down dead-end streets. What it does not do is to make the integrated knowledge of the educator the measuring rod of an appropriate integration for the student. I was disappointed to discover that this volume, despite its fine emphasis upon the integrating experience as the hub around which the development of the student must take place, permits the curriculum to become a dominating factor, rather than the material which a wise teacher uses to advance the progressive integration of young people, an integration of such quality that, as these authors state, their "years of formal education may become not only more permanently useful but . . . become also only the prelude to a continuing self-directed education" (page 104).

My purpose in pressing this point is to suggest the need for a more careful analysis of the philosophy set forth by the authors. The consideration of philosophy here provides no critical base against which to check the conclusions reached. The chapter that deals with philosophy specifically differentiates these views: naturalism, idealism, realism, and pragmatism. It does this through a consideration of an imaginative situation in which four parents, serving as panel members at a meeting of a junior-high school P. T. A., have arrived at the problem, "What I want high school to do for my child." Each imaginary statement is then analyzed to see what values were implicit within it, since the authors define philosophy simply as "an attempt to make the implicit explicit." One might say, of course, almost as an aside here, that the function of philosophy in relationship to education is to make the explicit implicit in all of the work that the schools do.

---

[4] *Experience and Education.* New York: Macmillan Company, 1938, pp. 31–32.

When the differing philosophical views are presented, questions begin to arise on every page. If naturalism is more than mere materialism, a pandering to sensualism, as the authors contend, why is it separated from pragmatism, which is certainly a member of this school, as the volume describes it? Why is idealism presented solely as religious idealism, a stricture that will leave many idealists homeless? Why is it that realism is given the distinction of emphasizing the intellectual activities of man, as if other philosophies were not equally interested in exactly this emphasis? And why is pragmatism given an exclusive right, as the views are here presented, to be the champion of democracy? I believe I qualify as a pragmatist. I hope my life efforts make a small contribution to the further flowering of the democratic heritage for more and more men. But I know representatives of all philosophical schools, as well as men who represent none, who share this hope with me. I happen to believe that in pragmatism may be found the best hope for free men but I would be callous, indeed, were I to cut others off from believing as deeply that their philosophies lead to this end even more imaginatively and effectively.

It is here that the source of the difficulty the authors struggle with, and which has been my major concern, is to be found. Having identified pragmatism with democracy, their tests for the integrating educational experience, in so far as the philosophy is directive, are:

1. Respect for the individual.
2. Equality of citizens.
3. As much liberty for each individual as is compatible with the general welfare.
4. Co-operation for the common good (page 40).

Having given concern for intellectual activities, for critical thinking, to realism—a strange gift, incidentally, for pragmatists to make in view of the continued emphasis in Dewey's thought on the rôle of intelligence in the development of individual and social behavior—they have nothing to serve as an anchor for their belief in the integrating function of all of the work of the school. And where may such an anchor be found, outside of the totalitarian lands, if not in the functioning of intelligence as each individual student puts his life together progressively, under the wise guidance of teachers who know that lasting security, in so far as this is available to man, is to be found not in specific values, or in a given integration of values, but in the method by which one determines values. The essentials of this method are, in Dewey's words, "identical with the essentials of reflection."

If teachers are to be effective guides of reflective growing, they must, of course, know something; they must themselves have put together the field of knowledge they represent. But their function is not to guide the students into an organization of knowledge which gets its distinction from its identity with theirs. It is, rather, to use what they know in order to tie into the moving experiences of students so that their knowledge will illuminate the growing and expanding lives students do in fact live. Thus, while we must organize materials, if teaching is to be effective, the actual curriculum in which we are interested only comes into being as our materials impinge upon the lives of the students and lead them to a continuing reflective reconstruction of what they have heretofore known and believed. It is for this reason that I suggest that the major concerns of this volume could be best represented by the words, *the integrating curriculum.* Integrated knowledge, put together as it was for other than teaching purposes, might then be viewed as a means to help, along with other means, the student integrate his own life. Under these circumstances the authors might escape the problem that dogged them throughout their conferences and writing. The curriculum would then come into being, as it should, as knowledge itself comes into being for the student when he uses materials reflectively.

IF THE impression has been given, as I have expressed certain tentative conclusions, that I have gone back on my opening statement, "This is a good book," this consequence may be traced to my general ineptness of expression. I stand on that judgment. The authors give serious thought to the basic problem of education, that of creating conditions within which young people may grow with understanding and appreciation into a life they may effectively share with free men. They do this, moreover, at a time when we had better start "talking sense about our schools." And much sense is talked in this volume. For instance:

> The total educational task is too great for one institution; all are needed. What is required of us in the schools is to identify and clarify our central core of responsibilities and then to guide our developing programs in terms of this clear delineation of role (page 108).

> However worthwhile and effective particular ideas, problems, and methods of inquiry might be in integrating an educational program, they do not develop automatically or without concerted thought and effort on the part of the instructional staff (page 152).
>
> The attempt to solve a problem can be a significant learning experience if the problem is of interest to the student, if the attack on the problem requires new modes of response from the student, and if the student can learn from his errors and recognizes and is rewarded for his successes. The attack on a problem can serve an integrating function when the problem requires the student to use a wide range of subject matter, different ways of viewing phenomena, and various methods of working (page 99).
>
> Students should be encouraged to find their own organizations and relationships, and some of the students' educational experiences should be planned for this purpose (page 91).
>
> The teacher who wishes the student to become an integrating person will not attempt to force a point of view on the student. Rather, he will open the situation to exploration, helping to supply information as it is needed and relevant. The student can then feel free to explore positions other than that he holds to determine their merits and to decide whether or not to accept them as his own. At the same time, he is engaging in integrative behavior (page 57).
>
> Examinations, even those related to specific courses, can develop new perspectives on old material, encourage a problem-solving attitude, and stress the importance of evaluating and using information previously learned to solve a new problem (page 129).

The quotations may seem to provide a refutation of the validity of my critical comments, but I think not. They show that the authors are interested in a decent, humane world and in an educational program that will better prepare young people to enter such a world and contribute to the maintenance of its basic values. They show, also, a proper sensitiveness to what is known about learning.

The authors are not quite ready to resist the pull of curriculum-building habits, however, and stake their case on the ground they actually prepare, that of making inquiry the centrally motivating force for the work of the school. But this is just what the philosophy they announce as their own suggests.

A Co-ordinating Course in the History and Philosophy of Education

By SISTER M. THEOPHANE, C.C.V.I.

IN THE organization of a teacher-education program a course related in any way to history or philosophy of education is usually accorded the status of a stepchild because it reputedly ranks very low in functional value. Teachers can see utility in educational psychology, and in methods and procedures, but history and philosophy they think of as functioning unconsciously, if at all. In an effort to reduce some of the prejudice existing in students' minds and to show how very "functional" a course in the foundations of education can be, the procedure described in this paper was initiated.

The location of a course described as history and philosophy of education in the second semester of the senior year of a teacher-education program seemed to be more than an arbitrary arrangement. This course fell as readily into the general-education scheme as it did into the professional sequence. Consequently it served as an opportunity for integrating both aspects of a student's education, general and professional. It also aided in dispelling the idea that there is a dichotomy between these two areas of knowledge.

In order to place a course in the foundations (history and philosophy of education) in its proper perspective as a co-ordinating course, it is necessary to know the educational program which preceded it. The course was required of all students in the teacher-education program, both secondary and elementary. Prior to this course, the students had seven semesters of college work. They all had four semesters in the humanities organized under two main headings—Problems of Western Civilization and the Arts in Western Civilization. The first of these courses included a study of the moral, cultural, economic, social, and political problems of the modern world, interpreted in the light of the experiences of Western civilization in the fields of religion, philosophy, history, and literature. The second, the Arts in Western Civilization, was a study of modern aesthetic and cultural problems in art, architecture, and music, interpreted in the light of the experiences of the past. These gave the students a broad acquaintance with Western culture. Courses in social sciences gave all students an understanding of the nature, structure, operation, and functions of society; courses in the natural sciences, a knowledge of the fundamental principles of the physical and biological sciences. Seven semesters of theology and philosophy acquainted the students with the world's great thinkers and developed right principles of thought and action. They likewise presented them with the fundamentals of Christian doctrine and fostered growth of the supernatural life expressing itself in spiritual leadership. This synopsis of general education may be accepted as the common background of all candidates for teacher certification. In addition to this, some differentiation between the preparation of the elementary- and secondary-school candidates may be noted. Each department represented in the curriculum offerings of the institution may have one or more representatives of teacher education aiming at secondary-school teaching and acquiring the background in subject-matter this requires. Thus it is possible to have in one class English majors who have had an extended study of literature, social-science majors with a rich background in history or sociology, and science majors who have had an additional year of work in some specialized segment of the natural sciences. The knowledge these students have of subject-matter can be shared with the entire group at appropriate times in the study of the foundations of education, thus rounding out the general education of all.

Students preparing for elementary-school teaching have in addition to their two years of general education another year's study of the subject-matter of the elementary school. Knowledge of children's literature, health, music, and arts and crafts necessary for effective elementary-school teaching is provided in the elementary teacher's program.

The professional preparation of candidates for elementary- and secondary-school teaching was practically identical. Two courses described as pre-professional education were prescribed for all. These introductory courses gave the student an overview of the contemporary school and the teaching profession. Four courses described as professional education followed these and provided some differentiation between the elementary- and secondary-school teachers' needs. These included educational psychology, child study and adolescent psychology, the curriculum of the elementary or secondary school, and methods and techniques of teaching on either level. Supervised student teaching was allocated to the first semester of the senior year. This gave the student an opportunity to put into practice what she had accepted theoretically and to meet children in the various situations of the school day. Then as a terminus to her professional education a course in the foundations of education was reserved for the last semester of the senior year, thus giving an opportunity for integrating the student's knowledge of pedagogy, derived by experience and by training, with the educational thought of the centuries. It also served as an opportunity of unifying the professional content with the general education the students had acquired prior to, or coincidental with, specialized preparation for certification. The importance of the student's own education in liberal subjects became more significant, and the relation of education to the parent sciences of philosophy, sociology, and theology was emphasized. Combining students with a common background in general and professional education in the same class with those who had an extended study in some particular discipline provided for an enrichment and exchange of ideas that could scarcely be possible in any other circumstance.

THE organization of content in this co-ordinating course was around significant periods such as Greek education, especially the Athenian idea of the liberal arts, Christian education, the Renaissance period, and modern education. While this plan called for concentration on specific areas, the sequence was preserved by a briefer examination of the transition from one period to another and the part education played as a preserver and transmitter of culture.

In Athenian education the student saw the origin of the liberal arts and the means taken to provide the proper training of the individual so disciplined in mind and body as to be free of excess in any form. The readings in the history of education which of necessity pointed up the pedagogical features of the period were made the core around which to integrate the knowledge acquired in literature, social sciences, and philosophy. In the light of the political history of Athens, the concept of a liberal education for the freeman was presented by the history majors who were aware of the strengths and weaknesses of this program which their study of history had emphasized. The English majors reported on the classics of the period—tragedies of Aeschylus and Sophocles and the comedies of Aristophanes—thus reviewing what they had learned previously and making meaningful correlations. All students had had an introduction to world literature in their first-year humanities courses, and a review of their notes from the vantage point of educational theory and practice helped to unify the information which heretofore may not have been correlated. The initial acquaintance with Socrates, Plato, and Aristotle provided in philosophy classes was enlarged and enriched by the study of their educational aims and practices.

This unifying of the student's knowledge derived from her general education with the history of schools and teaching helped to illustrate how enduring is the concept of a liberal education which reached maturity in the Hellenistic era and preserved its structure and method for many centuries without many important changes. From the philosophic viewpoint the student saw that educational problems such as the aims of education and the nature of the child and the learning process depend in large measure upon the philosophical conceptions of ultimate aims, man's nature, and the nature of society.

THE unit on Christian education had even more possibilities for the integration of learning accumulated during seven semesters in a Catholic college. The study of theology, liturgy, and scripture had been one of the main stems on the student's program. When the educational mission of the early Christians was discovered to have been teaching dogma and doctrine and preaching Christian behavior, the student began to grasp the significance of religion in education and the rôle of the Church-related school. She could correlate her knowledge of the Gospels, the Acts, and the Epistles with the early catechumenal efforts of the Church. Historically she could place the beginning of the Christian school and discover from the writings of St. Basil, St. Jerome, and St. Augustine how Greek and Roman educational ideas became integrated with Christianity. Her knowledge of Church history, the lives of the saints, and scripture which may have been identified as belonging to theology or literature classes, now took on new relevancy when combined with the educational practices of the time, the content of education, and the methods of teaching. This attempt to integrate the knowledge derived from many classes and from many instructors through the medium of the educational foundations should make "functional" the work of many teachers in so far as the learning acquired under many catalogue titles co-ordinates in the mind of the student and functions in her everyday life and in her approach to the teaching profession.

This course in the foundations makes it possible to trace school practices such as methods of teaching back to the Athenian school and before. Methods are certainly stressed in the contemporary teacher-education program, but methods have a great antiquity. For example, the prospective teacher hears that children should be taught "to think"—intellectual learning. She can trace this idea back through modern education and the "problem solving" and "scientific method" era through the Renaissance and the revival of the classic concept of self-discipline and individual development, through the Middle Ages when the Scholastic method of syllogistic reasoning was at its height, through Roman and Greek education to Socrates who named it the "maieutic method." Fundamentally the use of the intellect as the distinctive faculty of man was emphasized even though the terminology may have varied with the time and the principal educators. Helping students to see the primacy of intellectual learning as the characteristic of man as man will result in respect for a program that emphasizes mental discipline and at the same time will increase appreciation of the range and extent of variations in mental ability known today.

The school curriculum offers another possibility for co-ordinating general and professional education. The contemporary elementary-school curriculum includes a wide range of subjects: the skills of reading, writing, and arithmetic; social studies; health; art; music—to name only a few of the standard curriculum requirements. In the light of the history of education the student can discover the origin of some of these and the justification for their addition to the fundamental learnings of the elementary school. She can also recognize the antiquity of the skill subjects, note how they were treated at different periods, and perhaps wonder at the result of the expanded curriculum when faced with the criticisms that the elementary school is failing in one of its primary purposes, the teaching of skills.

THESE selected examples of co-ordination of the general with the professional education of the student can be readily multiplied. The possibilities abound, but the basic question arises, How is the co-ordination attempted?

The primary emphasis must be on reading—independent reading in the history of education and in source materials. When a student becomes conscious of the place of pedagogical dictums in the history of Western civilization and when she can associate her study of humanities, social studies, and sciences of the same period, she is beginning to see education in its relation to the parent sciences. Her professional education ceases to be only something that must be taken as a requirement. It stands as a content that has deep roots in Western culture and which has been transmitted as a living growth of aims, methods, and curriculum.

In addition to reading there must be reports from the students who have majored in a particular discipline showing the integration of general education with the pedagogy of the period and thereby contributing to unification of ideas. Discussions centering around educational topics but involving general education and showing the correlation between the content of other classes and the foundations course are vital for the exchange of information and for the clarification of the relations between the professional and the liberal content. Individual conferences with students during the course of the semester will bring to light their recognition of the foundations of education as a liberalizing subject bringing together all the endeavors of man to "know." The foundations course also provides a basis for understanding the more functional courses that are a necessary part of teacher education.

A course co-ordinating the general and professional education of a student may be only one way of approaching history and philosophy of education. In this instance it seemed to serve as a planned culmination of a student's four years of educational efforts and as a link between general education and the teaching profession. It gave the students the competence necessary to sift the true from the false, to separate the permanent from the transitory, and to apply the ultimates of philosophy to contemporary educational practices and techniques.

Some Trends in Teacher Education

By SHIZUKO N. HARRY

TEACHER education is not standing still. What, then, are some of its salient trends? To answer this question, the writer reviewed the literature on teacher education and also visited five Midwestern institutions to ascertain what practices in secondary education were in effect in these schools and what changes they might desire. These five were chosen for visitation from a list of fifteen institutions named independently by three national authorities on teacher education as having outstanding programs in secondary education: Ball State Teachers College (Muncie, Indiana), Indiana University, University of Minnesota, Ohio State University, and Western Michigan College.

At each institution, certain key personnel in teacher education, such as the dean of the college of education, the head of the department of education, and the co-ordinator of laboratory experiences, were interviewed. Each individual was asked in what respects he considered the undergraduate professional program in secondary education at his institution to be "forward looking" and what improvements he desired in the program.

An analysis of the replies to these two questions points to the following trends in the education of prospective teachers:

1. Increasing the amount of varied, guided, meaningful experiences which students have with children and youth in the public schools and in community agencies prior to student teaching
2. Offering certain basic professional courses, such as human growth and development, educational psychology, and introduction to teaching, in the common curriculum to students in both elementary and secondary education
3. Increasing the amount of student teaching to a full day for one quarter or one semester, and also including internship as part of the requirements of the fourth year or of an added fifth year
4. Providing concurrent or post–student teaching seminars or both
5. Establishing a professional quarter or semester by having students take only professional education assignments
6. Making special-methods courses more practical and meaningful to prospective teachers by relating them closely to student teaching
7. Providing good curriculum laboratories and augmenting them

with well-equipped teaching-materials centers and with audio-visual laboratories

8. Utilizing the campus laboratory school to better advantage in inducting prospective teachers into the teaching process prior to student teaching

9. Increasing interdepartmental correlation and responsibility for teacher education in the entire university[1]

Particular attention is directed here to the fact that although all five institutions have provisions whereby students obtain professional laboratory experiences prior to student teaching, each is concerned with improving in some way the contacts that prospective teachers have with children and youth. Two institutions want to provide earlier guided contacts with young people and also to relate out-of-school experiences more closely to classroom work. Three want to increase and intensify the experiences students have in community agencies.

MANY of the trends identified have been mentioned by various investigators in the field of teacher education. Stiles noted a trend toward organizing professional education into composite, fused, or core courses and a slight tendency toward providing a five-year program in teacher education.[2] Doane reported that there was greater interest in placing the significant topics of professional education into three or four large area courses.[3] Ballou detected increasing concern for: (1) a more functional integration of theory and practice, involving such factors as the study of children, use of community resources, and provision for well-planned and extended laboratory experiences in conjunction with education courses; (2) more direct relationships between special methods and supervised teaching; and (3) more critical evaluations of all phases of the teacher-education curriculum. He also found recommendations of five-year programs for teachers in secondary schools.[4]

---

[1] Harry, Shizuko N. "An Appraisal of the Undergraduate Professional Program in Secondary Education at the University of Utah." 1956. An unpublished doctoral thesis on file in the library of the University of Utah.

[2] Stiles, Lindley J. "Pre-Service Education of High-School Teachers in Universities," *School Review*, LIV (March, 1946), pp. 162–65.

[3] Doane, Kenneth Ralph. "A Study of the Professional Curriculum Requirements for the Preparation of High School Teachers in the United States," *Journal of Experimental Education*, XVI (September, 1947), pp. 66–99.

[4] Ballou, Stephen Vaughan. "Preservice Professional Education of Teachers: a Synthesis of Research, 1928–48." 1951. An unpublished doctoral thesis on file in the library of the University of Colorado, pp. 92, 96, 286.

Johnston mentioned the desirability of having a seminar in teaching problems paralleling the student-teaching experience.[5] Rucker noted a trend toward either a full-time program in student teaching or "a professional core or integrated block near the end of the college experience." He identified "the use of more laboratory experiences in teacher education," provisions for "more off-campus experiences in student teaching," and increased "use of laboratory activities, including student teaching, as the reference point of the whole curriculum in teacher education."[6] Among the basic principles which Woodring advanced as those which both the academic and intellectual critics and the education professors might possibly agree on were: the teacher should spend "five college years in preparation for his profession," and "the planning of the curriculum for teacher education should be the joint responsibility of the professional educators and of scholars in the various academic fields."[7]

Thus we note that the pronounced trends in teacher education indicated in educational literature exist at five institutions which are outstanding in their secondary education programs.

[Vol. XXXVII, No. 6]

* * *

"INSTRUCTIONAL Approaches in Reading" will be the theme of the 1959 Annual Reading Institute of Temple University to be held in Philadelphia, January 29–30. The program will include meetings for teachers of kindergarten, primary and intermediate grades, junior and senior high school, reading and language arts; school psychologists; special-class directors and teachers; administrators and supervisors; teacher education personnel; college reading directors and instructors; and reading clinic directors and clinicians. However, registration is limited and must be completed in advance. The 1960 and 1961 Institutes will consider "Current Trends in Reading" and "Developing Basic Reading Abilities." These themes have been set up in advance to help delegates plan their attendance.

---

[5] Johnston, Ruth Vivian. "Trends in Secondary Education School Curriculum Concepts, Their Implications for the Teaching Function and Teacher Preparation: an Analysis of Selected Curriculum Guides and Courses of Study, 1926–1950." 1952. An unpublished doctoral thesis on file in the library of the University of Minnesota, p. 254.

[6] Rucker, W. Ray. "Trends in Student Teaching—1932 to 1952," *Journal of Teacher Education*, IV (December, 1953), p. 263.

[7] Woodring, Paul. "Basic Agreements in Teacher Education," *Journal of Teacher Education*, VI (June, 1955), pp. 98–99.

EDITORIAL COMMENT

A Colleague Retires

An era in the history of the Educational Research Bulletin ended with the retirement of Josephine H. MacLatchy from active University service on July 1, 1958. This is the first issue of the magazine in which the masthead does not carry her name. She, far more than any other person, has been responsible for the high standards that the Bulletin has maintained and the prestige that it has enjoyed.

Miss MacLatchy did her undergraduate work at Acadia University, Wolfville, Nova Scotia. Her graduate work was done at Yale University where she was an Ives Fellow in Philosophy for two years, and at the University of Chicago, from which she received the A.M. and Ph.D. degrees.

Before she came to Ohio State University, Miss MacLatchy taught psychology and education at Western State Normal School (Kalamazoo, Michigan), Bradley Institute, and Lindenwood College for Women, and was proprietor and editor of the *Educational Review* (St. John and Moncton, New Brunswick). In January, 1922, she joined the staff of the newly organized Bureau of Educational Research (now the Bureau of Educational Research and Service) at Ohio State University, where she served continuously until her retirement this year.

Her principal duties here were editorial. She was a member of the staff of the Educational Research Bulletin from its first issue in January, 1922. For six years she was assistant editor of the *Journal of Educational Research*. She planned and carried out most of the work preparatory to launching the *Journal of Higher Education*, which began publication in January, 1930, and served as assistant and associate editor of this magazine until her retirement. Her work included not only copy editing and proofreading but also promotion and editorial management.

In addition, she edited the *Proceedings* of the annual Ohio State Educational Conference (1924–32), *Education on the Air* (proceedings of the Institute for Education by Radio, 1930–44), the Bureau of Educational Research Monographs (34 volumes, 1924–58), and a number of booklets published as Bureau of Educational Research Pamphlets. Her work as editor included writing editorials as well as preparing many unsigned reviews, news notes, and so on. She trained a number of editorial assistants who have since held important editorial positions. In all this multiplicity of editorial work, she maintained the highest standards of excellence, standards which her successors will find it exceedingly difficult to maintain.

Along with her heavy editorial duties, she carried on an extensive program of research and writing. Her doctoral dissertation reported a three-year study of the relation of kindergarten attendance to progress in the primary grades. Data were gathered from some 5,500 school children in eight cities. For many years she has carried on research in the teaching of reading, spelling, and arithmetic to students having difficulties in these areas of learning. This research has involved, among other things, tutoring pupils, conferring with parents, working with teachers, supervising the work of assistants, counseling graduate students, and making an extensive analysis of the contents of children's readers. Her studies have been reported in a number of magazines.

Such in brief outline have been some of Miss MacLatchy's professional services. To this recital the writer would add a personal note. He is greatly indebted to his colleague for what he has learned from her about both the technical and the nontechnical aspects of the work of an education editor, and indeed about educational problems in general. He has known few persons who possessed such a combination of ability, integrity, and industry as she has.

It is a pleasure to report that Miss MacLatchy is continuing her research in the teaching of reading and arithmetic. Since she is now freed from routine duties, she should be able to make rapid progress with this work. There is every reason to expect that this research will eventuate in important contributions to education.

On behalf of her colleagues, we extend to Miss MacLatchy congratulations on her long and distinguished service and best wishes for many more years of productive and satisfying work.

R.H.E.

Letter to the Editor

An error in my article, "Can We Teach the High-School Student to Think?"[1] has been pointed out to me by astute and careful readers of the BULLETIN. The sentence needing correction is on page 99, and reads:

---

[1] XXXVII (April 9, 1958), pp. 91–100, 112.

We are still conditioning our students to expect the clarity and certainty of mathematics in all branches of knowledge, although it has been known for two hundred years that the mathematical method of reasoning cannot be used unless you can find self-evident axioms to start from, and that these are to be found only in the science of pure mathematics.

As one charitable critic has written me, this is not what I meant to say, for the "mathematical method" of valid deduction from a set of axioms or first premises can be used whether the axioms are true, false, or of unknown truth-status. Of course, the truth of the conclusions is established only if the axioms are known to be true. The point I intended to convey in the sentence quoted was that the procedure of establishing the truth of conclusions by deductive reasoning from axioms can be used only when we have axioms we know are true. Such axioms as "Equals added to equals give equals as a result" serve as self-evident axioms in mathematics. High-school students should, I am suggesting, see that this pattern of proof can be used only when axioms known to be true are available, and in most branches of inquiry no such axioms are available. The vain hope that this method of proof can be used to solve social, moral, or factual problems is fostered by the misleading prefaces of high-school mathematics textbooks when they suggest that mathematics is the model for all clear reasoning. My point, again emphasized on page 100, item 4, is that we should make our students aware of the impossibility of applying this method of reasoning outside the field of pure mathematics and logic.

CYNTHIA SCHUSTER
Montana State University

IT IS with sorrow that we report the death, on July 9, 1958, of Ruth E. Seeger, research librarian in the Bureau of Educational Research and Service since 1926. The October issue of the BULLETIN will carry an account of her service.

READINGS

Books to Read

Thut, I. N. *The Story of Education: Philosophical and Historical Foundations.* New York: McGraw-Hill Book Company, Inc., 1957. x+410 pp.

Within a certain framework of discourse, I. N. Thut's *Story of Education* is an example of textbook writing at its best. Filled with the great ideas of Western man gleaned from an impressive list of readings, the book unfolds the drama of man's quest for the good life and the good education.

Mr. Thut has written a history of educational philosophy from the viewpoint of a pragmatist who sees the history of thought as part of an evolutionary process of which modern philosophy—which for Mr. Thut consists of pragmatism and modern science equated with operationalism—is the higher form of thought, superior in aim and methods to previous forms of intellectual endeavor.

This is textbook writing at its best because the author has brought out the dramatic elements of the history of educational ideas. The book is no pedantic set of names, facts, and events. Instead, it brings the reader within a circle of vital and stimulating ideas; it makes theory readable and exciting. What is more, Mr. Thut has not taken the easy way out by glossing over difficult concepts—instead he succeeds in making the difficult understandable. His treatment of Plato, Aristotle, Aquinas, Rousseau, and *Gestalt* psychology, while subject to criticism as to interpretation, is quite thorough in view of the length of the book.

Yet for all this praise, and the book deserves praise, *The Story of Education* has serious shortcomings. It tends to present the history of ideas as a struggle between the misguided and the enlightened and in so doing it oversimplifies the development of philosophical thought. Also, Mr. Thut has omitted the fact that there are modern schools of philosophy, psychology, and science which are at variance with pragmatism, field theory, and operationalism. For example, he makes no mention of Whitehead, Russell, Carnap, Braithwaite, Sartre, or Cassirer. Also, Mr. Thut's understanding of science as void of objectivity can be used to throw out the views of the experimentalist plus the views of those who would construct the good life out of the real-life activities of man.

The author claims that the "American way of life is the philosophy that knowledge of the good is constructed, and translated into action" (page 354). This kind of phrase may work to bring students who love the American way of life to embrace that philosophy, but it does not make the philosophy any more or less valid than if it were labeled the Russian way of life. In the same vein, Mr. Thut makes unjustifiable use of the term *authoritarian* as a blanket to smother the claims of other than pragmatic social and intellectual systems. And if, as Mr. Thut claims, anti-intellectualism is freezing the students' minds as they entertain different views about the world, then the use of semantic symbols can itself lead to a smug anti-intellectualism. It is, however, to the author's credit that he does not commit this error throughout the book, but still, the thoughtful teacher should be prepared to see that his students are made aware of the philosophical framework which the author uses to pass judgments on the history of educational ideas. Bearing this in mind, *The Story of Education* is a book well worth reading.

BERNARD MEHL

BROWN, CHARLES HARVEY. *Scientific Serials: Characteristics and Lists of Most Cited Publications in Mathematics, Physics, Chemistry, Geology, Physiology, Botany, Zoology, and Entomology*. Chicago: Association of College and Reference Libraries, 1956. xvi+189 pp. (ACRL Monograph Number 16).

The author of this particular volume of the ACRL Monographs states in the Preface that its primary purpose

> . . . is not to present lists of most frequently cited serials but rather to attempt to ascertain what conclusions and inferences can be drawn from a study of such lists in various fields of science and what results can be obtained . . . which will make the use of libraries by scientists more effective (page vii).

Mr. Brown sticks to his purpose to emphasize conclusions, but the lists are included as well and form an extremely useful tool for librarians and scientists.

Of particular interest and value is Chapter III which is devoted to the inferences which the author has drawn from the most frequently cited lists. The table which follows indicates clearly the relative rate of obsolescence of journal articles and the varying degrees of stability of the eight scientific disciplines under study:

Decades which must be considered if a library is to make available 90 per cent of cited literature:*

Science	Decades	Percentage
Physics	1934–53	91.0
Physiology	1924–53	93.6
Botany	1924–53	89.5
Mathematics	1924–53	88.5
Chemistry	1914–53	91.0
Geology	1914–53	90.0
Entomology	1904–53	91.0
Zoology	1904–53	89.7

[*] Table 5, page 27.

The acquisition, housing, and discarding of scientific serials are discussed in Chapter V. Here reference is made to the Farmington plan for procuring for one or another American library at least one copy of every research book currently published abroad, and to the proposal of the Midwest Inter-Library Center to subscribe to all journals abstracted by *Chemical Abstracts* which are not held in one or more of the nineteen member libraries. The latter proposal has since been put into operation.

Toward the end of the volume there are four pages of selected references germane to the general subject treated. This bibliography is helpful, but it would be more so if it were less selective and contained a larger number of references. Valuable for comparison purposes are the lists of most frequently cited serials which were compiled in 1942–44 by the Association of Research Libraries. These older lists cover nine scientific disciplines and appear as Appendix B.

Charles Harvey Brown, perhaps the dean of scientific literature librarians in the United States, has in this compact volume made a significant contribution to the work of research scientists and librarians of academic and research institutions.

LEWIS C. BRANSCOMB

AMERICAN LIBRARY ASSOCIATION, SUBCOMMTTEE OF THE EDITORIAL COMMITTEE. "A Basic Book Collection for High Schools." 6th ed. Chicago: American Library Association, 1957. vii+186 pp.

This is a very welcome revision of a standard library list; especially welcome for its evaluations of books published since 1950, the date of the former edition of this list. Exact comparisons of this with former lists are difficult, due to slight differences in classification. Some old titles have been dropped and many new ones added. This does not necessarily imply that the new ones are better; it may mean they are more readily available or that they are suggestions for additions to titles already held in a library.

The chief value of this list will probably be to aid in book selection in those libraries where a full-time librarian is not employed, though all school and children's librarians will find it valuable. Since full information for ordering, as well as very adequate annotations, is included much time may be saved by its use. It may also serve as a great aid in building a balanced collection since one aim of its compilers was to keep such a balance in listing. This is particularly true of the literature section.

The entries seem to be well selected and the annotations are adequate to aid one in determining the character and appropriateness of each book. A list of desirable magazines for the school library, a directory of publishers, a section devoted to aids for selection of audio-visual materials and equipment, and an excellent index are included. It is a most desirable aid to any school or children's library.

RUTH SEEGER

FINN, JAMES D. *The Audio-Visual Equipment Manual*. New York: Dryden Press, 1957. xxii+364 pp.

This manual is a valuable reference source for anyone working, or planning to work, in the field of audio-visual instruction. In four sections, the manual provides technical details with instructions for setting up, operating, and maintaining several models of projectors (16mm., slide, film strip, and transparency projectors), play-back equipment, tape recorders, and tachistoscopes. A series of photographs accompanies the step-by-step instructions for each piece of equipment. In addition to the technical and mechanical details, each section deals with the theory behind the types of audio-visual equipment therein considered, and also outlines good practices in their use.

The design of the manual with colored dividers for each section, and tabs for different types of equipment, facilitates quick reference. The bibliography on audio-visual textbooks, periodicals, manuals, films, film strips, and so on is an extremely useful addition.

The manual should prove especially helpful to teachers and administrators, instructors and students in audio-visual courses, school projectionists, instructors in industrial training, individuals using audio-visual materials either as a hobby or as a profession, dealers and salesmen in audio-visual materials, churches and clubs. SREEDHARA WARRIER

HAAG, JESSIE HELEN. *School Health Program*. New York: Henry Holt and Company, 1958. x+534 pp.

Miss Haag, associate professor of physical and health education of the University of Texas and the recipient of an award from the International Exhibition on Health Education, has prepared a comprehensive textbook covering virtually the entire field of school health education. The text was prepared in eight related parts including a description of school health services, healthful school environment, nutritional services, community resources for health education, the health and safety program of instruction, a chapter on organization and administration of the school health program, and a section on the health of the school personnel. Running through the entire text is the theme of teamwork involving school and community personnel working together for the improvement and protection of child health. The substance of the text is up to date and well documented, and aside from being somewhat unorthodox in its organizational format, the book will serve a distinctly useful purpose. DELBERT OBERTEUFFER

MIEL, ALICE, AND BROGAN, PEGGY. *More than Social Studies: a View of Social Learning in the Elementary School*. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1957. xii+452 pp. (Prentice-Hall Education Series).

The view of social learning which is presented by these authors involves a forward step in the democratic socialization of children. They propose that there are crucially important interrelationships between the direct interactional experiences of children and all of the academic content of their curriculum. These interrelationships represent tremendous potential for long-range advance in education. For example, they point out:

> The vital consideration of human existence is the fact that people are continually surrounded with the concrete and the abstract and with the problem of effecting some sort of relationship between them. Children need many kinds of social learning in this area. . . . One way to do

> this is to make sure that no segment of the school program keeps children exclusively with the concrete or with the abstract (page 133).

Ways for examining present procedures are suggested so that teachers can become increasingly aware of the separateness that too often exists between social learning and content coverage. Ways for approaching them creatively as mutually reinforcing aspects of a program of democratic socialization are carefully spelled out.

To this end, social learning in a democracy and the contributions of social studies are carefully and separately appraised in Part I. The authors propose

> that the social learning in which children engage as they grow in membership in their society be considered as a process with four closely interwoven strands: feeling good toward self and others, extending life-space selectively, solving problems democratically, and building socially useful meanings (pages 43–44).

When they appraise social studies from the history and geography era up to the present-day "unit of work" with its various forms and weaknesses, they conclude,

> . . . for all its shortcomings . . . the unit of work as a way of organizing elementary school social studies has more promise for democratic socialization than does the textbook. . . . The unit method . . . has the potential flexibility and responsiveness to individual continuity in social learning . . . if teachers and other curriculum workers insist that the unit of work not be divorced from living (pages 119–20).

In Part II the four strands of the process of social learning are convincingly developed and interwoven in ways of "helping children maintain continuity in social learning." All four chapters are replete with well-chosen situational accounts which are followed by the authors' interpretations under the heading, Reading between the Lines. For many readers this part of the book will provide the greatest challenge to their professional thinking. For all readers Part III, Special Helps for Teachers, will be especially rewarding. Here the authors sense and fulfill their obligation to deal with some of the particular problems that teachers will meet in trying "a new giant step" that can lead to "more than social studies."

Although this important book was written particularly for the elementary-school level it also has much to offer for secondary schools as they in turn assume responsibility for maintaining continuity in democratic socialization.

MARY JANE LOOMIS

BUREAU OF EDNL. & PSYL. RESEARCH
LIBRARY
55

EDUCATIONAL RESEARCH BULLETIN: ERB

BUREAU OF EDNL. & PSYL. RESEARCH
LIBRARY

OCTOBER 8, 1958

COLLEGE OF EDUCATION
THE OHIO STATE UNIVERSITY

Vol. XXXVII, No. 7

EDUCATIONAL RESEARCH BULLETIN

(Entered in the United States Patent Office)

R. H. ECKELBERRY..............*Editor*
SHIRLEY LIPSON.......*Assistant Editor*

PUBLISHED BY THE BUREAU OF EDUCATIONAL RESEARCH AND SERVICE, OHIO STATE UNIVERSITY, FOR THE SCHOOLS OF OHIO. EDITORIAL AND BUSINESS OFFICES, ROOM 173, ARPS HALL, COLUMBUS 10, OHIO

ANNUAL SUBSCRIPTION ONE DOLLAR ($1) TO PERSONS LIVING OUTSIDE OHIO

CONTENTS

The University, the High Schools, and the Superior Student 169
W. TODD FURNISS, *Ohio State University*

Talent versus Performance.............................. 172
CHESTER ALEXANDER, *Westminster College*

The Development of Pupil-Growth Criteria in Studies of Teacher Effectiveness............................ 178
HAROLD E. MITZEL AND CECILY F. GROSS, *College of the City of New York*

Johnny Appleseed: a Pilot Study of a Story-Centered Activity Program............................ 188
META NEWMAN, *Yellow Springs, Ohio*

Editorial Comment.................................. 193

THE EDUCATIONAL RESEARCH BULLETIN is published monthly except during June, July, and August. Entered as Second-Class Matter, February 9, 1922, at the Post Office at Columbus, Ohio, under the Act of August 24, 1912. Accepted for mailing at specified rates of postage provided for in Section 1103, Act of October 3, 1917, authorized February 21, 1922.

Educational Research Bulletin

OCTOBER 8, 1958
Vol. XXXVII, No. 7

The University, the High Schools, and the Superior Student

By W. TODD FURNISS

LAST April Novice G. Fawcett, president of Ohio State University, met with the superintendents of the school systems in Franklin County. The meeting was the result of a growing realization on the part of Mr. Fawcett and members of the faculty that there were unexploited areas of co-operation between the University and the high schools which, if developed, could bring benefits to the superior student. True, such a student was already eligible for some existing programs once he was enrolled in the University. For example, in the College of Arts and Sciences he might receive credit for courses on the basis of proficiency examinations, he could enter the College Honors Program and with the help of a faculty adviser make a curriculum tailored to his competence and interest, and if he needed financial help he could get it through the office of Student Financial Aids. But these advantages were available only after he had come to the University and only if he were made aware of their existence. It seemed possible that the University might be overlooking other advantages which might be provided in co-operation with the schools.

Three areas to be explored were suggested to the superintendents. First, it was pointed out that very little use had been made of the existing rules governing proficiency examinations. The rules provide that a student may earn up to 30 quarter hours of credit for college courses by taking and passing, with an *A* or *B*, examinations equivalent to final course examinations. Whether from ignorance of the rule or, as some suggested, reluctance to get into more advanced and therefore harder courses, qualified students have not generally made much use of this opportunity. It might be that with encouragement from the schools, they would. The University offered to reconsider any of its rules in regard to proficiency examinations should it appear to the schools that changes were in order.

The second program available in which high schools and the University might co-operate is the Advanced Placement Program. At present, only seven high schools in Ohio are participating regularly in this venture. The University offered to do what it could to help the schools set up such a program. At the time of the meeting, those of us at the University were indeed uncertain about the kind of help we could give. We hope that by the time the schools can move we will be better educated than we are and can give positive assistance.

The third suggestion made by the University grew out of an informal experiment conducted the year before in which four mathematics students from the University High School were admitted to college mathematics courses in which they performed very creditably. The University School asked if the experiment might be put on a more regular basis. To consider the possibilities, President Fawcett appointed a committee which suggested that for a period of two or three years, upon recommendation of a high-school principal and approval by the department concerned, a superior student might be admitted to a University course to do the same work and take the same examinations as those regularly enrolled. The program got under way in the Summer Quarter with eleven students from nine high schools enrolled in ten courses in eight different departments. Informal records are being kept in the Arts College Office and the student who successfully completes the course may expect to get credit for it if he subsequently enrolls in the University. It is much too early to tell how the experiment will work out. Certainly the faculty and parents with whom I have talked have been very enthusiastic.

THE meeting with the superintendents was held shortly before the end of the academic year. We hope that as the new year starts we will be able to find other ways in which the University can aid the best students to work profitably and at their capacity. Within the University we can work on our Honors Programs and our methods of recruiting for them; we can be more alert to spot the good students when they show up in classes and see that they get the maximum opportunities; we can institute more advanced sections of the regular courses; and we can try to discover new ways of achieving our goals. What the schools might do we cannot prescribe. To single out one as a model is probably unfair, since circumstances vary from school system to school system; yet the accomplishments of Don D. Longnecker, principal of Fairview High School in Dayton, seem to the University committee to set an enviable standard. The committee accepted Mr. Longnecker's invitation to visit his summer program for superior students—eighth grade through postgraduate—in July and were much impressed by what they saw in all the classrooms. Space does not allow a review of his program. I feel that its greatest significance lies in the seminal nature of what is being done. Bring together in one school for a period of concentrated study the best students and the best teachers from the entire school system and inevitably the values developed during that brief program will influence work done in all the grades in all the schools. As with any change that upsets established practices, there will be opposition from those who honestly doubt the propriety of what is being done and from those who are simply used to the old ways. But once we have recognized that we are not giving the best to the best students, we cannot in good conscience let academic and administrative tradition prevent us from trying to improve our offerings.

What I have reported here is not a full-blown program, certain of its goals, with its methods fixed by printed forms, and with its virtues certified by a foundation grant. It is like all efforts at improvement of what is already good: a groping, uneasy venture which will require that all of us involved remember the main point, that we could be doing better. For this reason the committee would be happy to receive from readers of the BULLETIN any suggestions that they may have which would help to further the program.

EDITOR'S NOTE.—The Editor concurs in this invitation to readers of the BULLETIN to pass along to Mr. Furniss' committee any questions, comments, or suggestions they may have. As the program develops, we hope to present additional articles about it.

Talent versus Performance

By CHESTER ALEXANDER

Two terms have been appearing increasingly often in the literature of higher education, in faculty discussions, and in the popular press—*superior student* and *gifted student.* Frequently they are used as if they were interchangeable, or at least as if they held nearly identical meanings; yet upon careful examination it becomes clear that there is a difference, a difference which is of major importance to all educators who are interested in the gifted students in their classrooms.

The two groups are not necessarily made up of the same students but it is possible for a student to be included in both groups; however, this does not happen very often. What are the distinctions between these two terms? First, the term *superior student* refers to performance, chiefly the marks that the student gets in the classroom. If his marks are sufficiently high that his name appears on the honor list, he may be classed as superior. If, in addition, he turns in assigned work promptly, attends classes regularly, reads the textbook ahead of daily discussions, does extra reading, and asks thoughtful questions in class, he may be sure that he is in that group. Not all of these traits must be present to distinguish the superior student and, moreover, we are not justified in saying that any or all of them also mark the student as a gifted student.

In a recent study of thirty students who had maintained average marks of 93 for two years and were honored as "superior students," the data showed that their intelligence quotients ranged from the 45th to the 95th centile, with a mean intelligence quotient considerably lower than that of 60 other students in the same college. They were listed as "superior" because they had maintained a high scholastic average. Undoubtedly they had performed as "superior students" but one questions whether they all should be classed as "gifted," in terms of intellectual excellence. The distinction is important not only so that we may agree on what we are talking about but also so that we can design teaching methods which will bring the gifted into the classification of superior students also.

Second, in the attempt to distinguish between "superior student" and "gifted student" one might also ask if tests of mental ability are the bases of each of the terms. When we speak of the "gifted" we are at liberty, of course, to ask what gifts we have in mind. There are numerous natural gifts, but those to which the term evidently refers are aptitudes for learning and for creative thinking and a fertile imagination, all of which could function well in formal educational circles. These are considered to be innate capacities which enable their possessors to do much better than the average student in solving intricate problems and treating their derivations objectively.

Various tests are given to the thousands of youth who enter the fifteen hundred accredited colleges and universities in the United States each year, and the scores are divided into percentile classes. Those who score above the median are also classified as above "average." Are they gifted, or should we move the minimum up higher, say beyond the 75th percentile line? This still may not be high enough, for some would like it at 90, or even 95.

IN ORDER to explore these attitudes regarding the difference between superior and gifted students a set of questionnaires was sent to, and replies received from, 121 colleges and universities. Among the more important data gained from the replies were the following. When asked if their schools have a large number of gifted students, 66 per cent said "yes," 15 per cent said "no," and 19 per cent gave varied replies such as "about one-third of the student body," "we have no reliable statistics," or "we do not know." Certainly there is ambiguity regarding the meaning of "a large number," as well as "gifted students," but the reason for not being more precise was that we want the definitions to be collectively built up.

In replying to the question, "Are the faculty informed who the gifted students are?" one-third of the colleges stated that their teachers are "not informed." Some stated that the professors may find out "if they take the initiative in inquiring." Clearly there is no uniform movement under way to identify the gifted students in many colleges.

It becomes evident that a fairly small percentage of professors know who the students are in their classes who have high intelligence quotients. Further, one-half of these schools do not tell such students that they have made high scores on intelligence tests. Unless they are told, how can they visualize themselves as different from their classmates?

The 121 colleges and universities investigated have over 250,000 students enrolled. According to estimates given by these schools, about 10 per cent, or 25,000, of their youth are classified as gifted, yet a large proportion of them are not so identified for their faculties or for themselves. Ninety-six per cent of the schools state that they rely in part on psychological tests to identify gifted students; 85 per cent rely on high-school transcripts, 66 per cent on interviews, and 45 per cent on letters of recommendation. Certainly some of the schools use two or more of these methods, but one wonders if they are adequate to identify the estimated 25,000 highly gifted youth who enter those colleges yearly. Other methods of identification include:

1. *Faculty reports which show unusual student potential.*—This method would work well if the student demonstrates the potential, but some of the gifted do not exhibit their talents sufficiently to get on honor lists. Some of them receive only average marks.

2. *Winners in competitions and at science fairs.*—Whether such competitions expose the gifted student, or merely the industrious, one cannot immediately predicate.

3. *Facts revealed during freshman orientation.*—This is a promising method if it includes sufficient attention to individuals, by persons who are interested in finding the gifted. If it is aimed merely at a quick college adjustment, many of those with high ability may be unnoticed.

4. *Campus leadership.*—Campus leadership is said to expose some of the gifted (it occasionally does), but it is slow in developing and in many colleges there are not as many opportunities for group leadership as there are gifted students. In addition, Freshmen are ordinarily limited in the number of chances they have to become leaders. And again, some of the brightest students are retiring and hence not selected as leaders.

5. *Freshman honor societies.*—In some cases a whole semester passes before Freshmen are elected to honoraries, and often the choice of members is based on marks rather than native ability. Because the latter is not so easily seen, the gifted may remain fairly inconspicuous.

6. *Proficiency tests in mathematics and English.*—Proficiency tests, which are usually given during the first week in college, may reveal a background of good high-school training. Frequently

the scores are not compared with the student's intelligence rating. Moreover, in some schools the tests are given by different departments and the test results may be used only for sectioning students.

7. *Other comments.*—Such remarks as, "casual and accidental comments by faculty members," "the word gets around," and "we have no means of identification before they arrive at the university" reveal the varied attitudes toward identification of those youth who have naturally keen minds.

Such evidence indicates that efforts to spot the brightest students are not well organized, and occasionally when identification does take place it is almost completely on the basis of class marks. This leaves little room for the very intelligent boy or girl with a poor high-school preparation, or for the one who has ridden along easily without making much use of the talent that nature has given.

Another observation about the differences between gifted and superior students is that the latter seem to adjust readily to college life early in their college career. The gifted student may not be so adept in making easy social contacts. He may be shy, and possibly some of the gifted are not very anxious to develop friendships quickly. The teachers of the gifted student may be dissatisfied with his class participation, since it does happen that few of the faculty know the students well.

We may visualize a non-metric scale with the recognized superior student at one end, well known and praised for his good marks. At the other end is a highly gifted student, bored with commonplace studies, somewhat aloof, not proud, not well known, possibly ill at ease in class, or even a bit rebellious over some of the demands which he is not meeting. We also recognize that there are numerous intervening points which tend to obscure the two extremes, with the result that the superior student is more conspicuous and sometimes is considered to be both superior and gifted. It can happen, but in at least one half of the cases the writer has studied the superior student is not also gifted.

IN ORDER to find out whether these apparent differences are widely observed a questionnaire, seeking definitions, was sent to, and returned by, 40 colleges and universities which had an enrollment of more than ten thousand students. The replies were then classified and reduced to percentages for the two groups of students as shown in the following table:

TRAIT	PER CENT	
	Gifted Students	Superior Students
1. Good intelligence	60	40
2. Very high intelligence	65	35
3. Special talent	65	35
4. Broad interests	87	13
5. High natural learning aptitude	68	32
6. Fertile imagination	72	28
7. High motivation	23	77
8. Curiosity	73	27
9. Industrious	16	84
10. Individualistic	90	10
11. Conformist	15	85
12. Dynamic personality	12	88
13. Creative, abstract thinker	74	26
14. Excellent memory	61	39
15. Exhibits leadership	21	79

The gifted students excel, then, in these characteristics: both "good" and "high" intelligence; special talent; broad interests; high natural learning aptitude; fertile imagination; curiosity; individualism; creative, abstract thinking; and excellent memory. The superior student leads in high motivation, industry, conformity, dynamic personality, and leadership. According to the findings of this study, the distinctions between "gifted" and "superior" students are becoming apparent and may even be reduced to a measurement scale. There may be other traits which could be introduced but these fifteen do represent the major terms used in responding to the questionnaire study.

Another distinction must be observed. Superior students are aware of their superior performance, faculty members know of it, students' names are posted and often printed in college publications. The reverse is too often the case with the gifted student.

Who of us has not had the experience of telling a student that he has a natural gift which puts him at the top of the intelligence-quotient scale? Many of us have also heard the reply, "Well, I never knew that. No one ever told me." Can we imagine a superior student saying that? Hundreds of gifted youth enter our colleges every autumn, become immersed in the activities of campus life, and never differ conspicuously from the average, either in marks or personality traits.

Here we focus our attention on a significant problem. Should the highly gifted students be told that they possess unusual mental capabilities? A few schools have posted the top I.Q. scores, only to find that some of their "brains" decided that they need not "crack a book" in order to keep ahead of others. This reaction, of course, was undesirable, and some of these schools, therefore, decided not to give out any of the scores.

Innate mental ability is a very personal affair, not transferable, sometimes unrecognized, not well understood, and subject to cultivation only by hard work. Moreover, its possession entails not only a personal but a heavy social responsibility. This view suggests that the gifted student should be told that he is gifted by someone who can at the same time convince him that his aim in life must be high. The counselor is obligated to see that the gifted student is aware of the responsibilities he bears to his family, to his school, and to society. If the student cannot afford a good college education, the counselor should aid him in an investigation of scholarships which are now abundantly available. Certainly this is a difficult assignment—one which calls for patience, skill, and many interviews. Of course these are important parts of the obligation of every college to its students; however, some colleges are so engaged in managing big classes that few staff members have time to consider the behavior of individual students, and too few know what to do about the gifted.

Now, more than ever, society needs persons who will exercise their native abilities in creativeness, in exploring the unknown, in being interested in asking "How?" and "Why?" and finding the answers. We have had a lot of experience with superior students but not enough with the gifted. There are thousands of gifted young people in our colleges, and many others who never get to college; but many of these are not recognized or, if we do locate them, are not understood and effectively stimulated.

Are we educators skillful enough to seek out such students and to encourage them? Undoubtedly we are, but we must visualize clearly the ways in which they differ and make effective plans for the cultivation of their minds. Neither aspect can be neglected. This calls for some new designs in higher education and considerable basic assistance.[1]

[Vol. XXXVII, No. 7]

---

[1] The writer wishes to acknowledge deep appreciation for the encouragement in this research shown by the Office of Education, Department of Health, Education, and Welfare, Washington, D. C.

The Development of Pupil-Growth Criteria in Studies of Teacher Effectiveness

By HAROLD E. MITZEL AND CECILY F. GROSS

ALTHOUGH teachers are effective to the extent that they stimulate their pupils to achieve desirable educational goals, research workers have been slow to seize upon pupil growth toward these goals as a means of evaluating teaching performance. Compared with other studies of procedures for evaluating teachers, there have been relatively few investigations involving comparison between measured achievement of pupils before and after a period of instruction. The dearth stems in part from the difficulty of isolating the contribution of a single influence—the teacher—to the complex of pupil growth. Yet, despite the difficulty, analysis of the effect of the teacher upon growth of pupils is essential to the functions of teacher recruitment, training, selection, and promotion.

One purpose of this article is to review critically a single aspect of the published research in which measures of pupil growth have been developed as criteria of effective teaching. We propose to restrict our discussion to the logic and methods by which the growth criteria were developed in those studies attempting to differentiate teachers on the basis of their pupils' achievement. No effort will be made to examine the relationships which were sought between pupil growth and a large number of teacher characteristics. The authors have focused attention solely upon criterion development in recognition of the fact that the degree of reliance to be placed upon any relationships that may appear between predictors and criteria depends ultimately upon the adequacy of those criteria. For reasons which we shall attempt subsequently to justify, we have further confined our review to criteria developed in studies of pupil growth at the elementary- and secondary-school levels and have omitted consideration of several interesting investigations involving college students and trainees in the armed forces.

For a comprehensive survey of quantitative studies of teaching effectiveness dealing with research findings extraneous to the purpose of this report the reader is referred to the bulletin by Morsh and Wilder (20).[1] A thoughtful review of the literature pertaining to antecedent teacher variables related to pupil growth has been presented by Ackerman (1).

---

[1] The number in parentheses after an investigator's name refers to the bibliography at the end of this article (*see* pages 186–87).

In addition to our review, we propose to present a number of issues basic to research in pupil growth, and to offer some suggestions for carrying out growth studies and interpreting results.[2] Although we have been concerned primarily with the development of growth criteria in the school setting, we believe that these issues and suggestions are also pertinent to research concerned with the outcomes of any interpersonal process designed to effect behavioral changes, including psychotherapy, industrial training courses, social case work, and the like. Our discussion of studies is organized roughly according to the method by which the development of the growth criterion was achieved: raw gain, achievement quotient, regression methods. Details concerning the studies are summarized in Table I.

RAW gain can be described as a method of obtaining a measure of pupil growth by substracting "before" from "after" scores or by substracting test scores from a pre-established standard. Baird and Bates (2) reported a study in which growth was estimated by comparing test scores with expectancy charts prepared by the Detroit Board of Education Research Department. A similar procedure was followed by Hill (12), using standards of growth set by the school administrators in the three midwestern cities in which the study was made. In a third study using the method of raw gain, Brookover (6) defined pupil growth as the difference between post-test and pretest scores.

THE achievement-quotient method is designed to adjust findings for differences in pupils' mental ability. Raw scores on achievement tests are converted into achievement ages by the use of normative tables. Sometimes the difference between initial achievement age and final achievement age is divided by mental age estimated from intelligence test scores to yield the achievement quotient. Sometimes initial and final scores are divided by the corresponding mental age. In some instances the gain index is computed only for class averages; in others, the ratios are determined for individual pupils.

One of the pioneer studies of pupil growth as a criterion of effective teaching was made by Lelah Crabbs (8). Her method

[2] The critique mentioned here will be published as a separate article in the November issue of the BULLETIN.

TABLE I

SUMMARY OF QUANTITATIVE STUDIES INVOLVING THE DEVELOPMENT OF A PUPIL-GROWTH CRITERION FOR TEACHER COMPETENCY

Method and Investigator*	No. of Teachers	No. of Pupils	Grade Range	Ability Measured	Achievement Tests Employed
(1)	(2)	(3)	(4)	(5)	(6)
Raw Gain:					
Baird-Bates (2), 1929..........	571	...	1–3	Reading	Unspecified
Brookover (6), 1945..........	66	1,275	11	History	Indiana United States History Examination
Hill (12), 1921..........	135	...	Elem.	Arith., spell., penmanship	Unspecified
Regression Methods:					
Betts (4), 1935..........	54	1,214	4–8	Omnibus achievement†	Stanford Achievement Test
Gotham (11), 1945..........	57	404	7–8	Social studies†	*See* Rostker
Jayne (13), 1945..........	28	375	7–8	Social studies†	*See* Rostker
Jones (15), 1946..........	29	...	H.S.	Biol., civics, Eng., soc. sci., or gen sci.‡	Unspecified standardized tests
La Duke (16), 1945..........	34	200	7–8	Social studies§	Social Studies Questionnaire
Lins (17), 1946..........	17	...	H.S.	Biol., civics, soc. sci., English, or gen. sci.‡	Unspecified standardized tests
McCall (19), 1951..........	73	2,164	6	Omnibus achievement‖	McCall-Herring Comp. Ach. Test; 6 unpub. tests in ach., word knowl., soc. behavior, composition, penmanship
Riesch (21), 1949..........	22	258	7–8	Social studies¶	Townsend and Willis Coop. Soc. Studies Test, Washburn Soc. Adj. Inventory, Wood Right Conduct Test, Remmers' Scale for Measuring Attitude toward any Teacher
Rolfe (22), 1945..........	57	404	7–8	Social studies§	*See* Rostker
Rostker (23), 1945..........	28	375	7–8	Social studies§	Unit tests, Wrightstone soc. stud. tests, Hill civic att. and info. tests
Von Eschen (27), 1945..........	28	375	7–8	Social studies	*See* Rostker

TABLE I [*Continued*]

SUMMARY OF QUANTITATIVE STUDIES INVOLVING THE DEVELOPMENT OF A PUPIL-GROWTH CRITERION FOR TEACHER COMPETENCY

Method and Investigator* (1)	No. of Teachers (2)	No. of Pupils (3)	Grade Range (4)	Ability Measured (5)	Achievement Tests Employed (6)
Achievement Quotient:					
Barr, *et al.* (3), 1935	66	1,716	2–7	Omnibus achievement§	Stanford Achievement Test
Bimson (5), 1937	25	688	H.S.	Algebra, gen. sci., or Am. hist.	Cooperative Tests
Coy (7), 1930	26	461	3–6	Omnibus achievement	Stanford Achievement Test
Crabbs (8), 1925	...	1,800	3–8	Omnibus achievement§	Five standardized tests
Stephens and Lichtenstein (24), 1947	86	...	5	Arithmetic**	Unspecified
Taylor (25), 1930	105	1,968	4–8	Reading and arithmetic††	Woody-McCall Test of Arith. Fund., Thorndike-McCall Test of Reading Comprehension

* The number in parentheses after the investigator's name refers to the bibliography, pages 186–87.

† Interval of one year between testings.

‡ Interval of one semester between testings.

§ Interval of six months between testings.

|| Interval of eight months between testings.

¶ Interval of three months between testings.

** Interval of five months between testings.

†† Interval of four months between testings.

of analysis consisted of finding the accomplishment ratios for both the initial test and final test in each subject for each pupil. The difference between the initial and final accomplishment ratios yielded a measure of accomplishment-ratio change. When the change value was averaged for all the pupils in a given class, the result was considered to be the teacher's efficiency score in that particular subject. The five subject scores were combined according to a pattern of weights to form a composite efficiency score.

Barr and associates (3) used pupil growth as one of several criteria of teacher success. Three measures of gain were employed in the study: (1) raw gain on the complete Stanford Achievement Test, (2) raw gain in the arithmetic section of the Stanford battery, and (3) gain in terms of an accomplishment quotient. Pupil intelligence was measured by means of three different tests: the Detroit Primary Intelligence Test, the Otis Self-Administering Test of Mental Ability, and the Terman Test of Mental Ability. Significant differences in arithmetic gain were found among the classes in five different Wisconsin towns included in the study. The accomplishment quotient was also used by Bimson (5), Coy (7), and Stephens and Lichtenstein (24).

A THIRD statistical method used for deriving teacher criterion scores is the multiple regression technique, which is designed to adjust raw growth for learning ability and initial achievement. The differences between pupils' initial and final test scores are averaged for each class, and the class means are entered into a multiple regression equation as the dependent variable. The choice of independent variables differs from study to study. Average initial test score and intelligence quotient are variables most frequently employed.

Betts (4) used a multiple partial regression model for analyzing his data. He partialed out the effects of the class average initial Stanford Achievement scores and mean class age. No direct attempt was made to account for class differences in mental ability. Zero-order correlations of .915 between mean final achievement scores and mean class age and .981 between mean initial achievement and mean final achievement tend to support Betts' conclusion that scores on the Stanford battery reflect pupil maturation more than growth attributable to teacher ability.

Taylor (25) reported the results of a study carried out in nine schools of a large city system. Like many investigators of pupil growth in studies conducted before 1930, the author intended primarily to validate supervisors' ratings of teachers by means of their pupils' progress in reading and arithmetic. As a standard measure of gain for each class, Taylor used the deviation of that class from the mean gain of all the classes in the city which were in the same half-grade. A correction was applied for increment in mental age over the four-month interval according to scores on the National Intelligence Test.

Perhaps the most ambitious study dealing with pupil growth criteria so far undertaken is the one reported by McCall (19). His measures covered eight separate functions about which knowledge of pupil growth was desired. The test battery was composed of the following:

1. Mental ability test
2. Comprehensive achievement test of general information
3. Omnibus achievement test in traditional subject-matter
4. Health and citizenship practices inventory
5. Word knowledge test
6. Social behavior (adjustment) test
7. Creative composition test
8. Handwriting test

Since the instruments used to measure these separate functions are not widely used in schools, it is difficult to judge their adequacy as operational definitions of the proposed variables. In order to arrive at a composite growth score for each of the 73 classes, McCall weighted the eight functions according to their judged importance in the hierarchy of educational goals in North Carolina. The weighted average growth scores for each class were then modified in two ways. One adjustment was made for the "capacity of each class to grow," based on an educational quotient derived by McCall's "line of relation" procedure (18). Another adjustment was undertaken to control the effect of class size upon pupil learning.

Regression equations were used in a number of investigations originating as doctoral dissertations at the University of Wisconsin under the sponsorship of A. S. Barr. In one of the series, Rostker (23) chose to measure social-studies achievement by means of three different tests with a total of eight parts. One two-part test covered the achievement of short-term objectives for two typical units on "Safeguarding Public Health" and "Community Planning." Initial and final test forms were given three weeks apart. Each teacher was permitted to develop individual methods and materials covering four or five major subtopics in each unit. In addition, achievement over a six-month interval was measured by the three Wrightstone social studies tests developed for the Progressive Education Association and the three parts of the Hill civic attitudes and information tests. The eight achievement scores were used singly and in various combinations throughout the study.

Rostker found that the short-term unit tests and the Hill tests showed low reliabilities for initial, final, and change scores. The three Wrightstone tests, on the other hand, showed reliabilities for change scores ranging from .43 to .80. A unitary unadjusted criterion score was devised for each teacher by combining mean standardized pupil change scores on the three basic source tests. The weights assigned to each source (1, 7, 1) were roughly proportional to their separate reliabilities. The decision to combine the criterion change scores presumably was taken despite the low intercorrelations which clustered around .12. The reliability of the unit-Wrightstone-Hill composite post-test minus pretest scores was reported as .76. This reliability is slightly smaller than that for the best of the three Wrightstone tests, "Applying Generalizations to Social Studies Events."

In order to adjust class gain scores for varying levels of average initial score, Rostker employed smoothed regression curves of average gain over initial score for the unit-Wrightstone-Hill test composite and for each of the three source tests individually. The author subsequently reported a correlation of .94 between the raw unit-Wrightstone-Hill gain and the adjusted unit-Wrightstone-Hill gain of 24 classes. He concluded that no advantage accrued through the use of adjusted gain scores rather than raw gain scores. Studies reported by Jayne (13) and Von Eschen (27) are based on Rostker's data.

Similar procedures in criterion development were followed by Rolfe (22) in a replication of Rostker's investigation. In Rolfe's study, the independent variables in the regression equation were average initial test score, average mental age, average intelligence quotient, and average reading score. A predicted average pupil change was calculated for each of the 47 classes by using the weights from the multiple regression equation. By subtracting the predicted average gain score from the actual average gain, Rolfe obtained a residual gain score which represented each teacher's effectiveness. Rolfe's pupil gain data were later used by Gotham (11).

La Duke (16) derived gain criteria by methods similar to those employed by Rolfe and Rostker. La Duke eliminated the three most deviant classes in the main analysis of the data in order to meet the assumption of homogeneity of variance underlying the *F* test.[3] Like several other investigators of this group, he found negative relationships between average pupil gain and initial test score which he attributed to the "ceiling effect" of the tests employed.

In still another Wisconsin study by Lins (17), a sample of 27 classes in biology, civics, English, social science, or general science were given initial and final standardized tests in their respective subjects. The mean raw score gain for each class was divided by the number of months between the testings to yield the average monthly raw score gain. The average raw score gains were then converted to standard scores for the classes in each individual subject. The average Henmon-Nelson mental age scores and the pretest achievement scores were also converted to z-scores. Multiple regression methods were employed to predict gain in achievement scores from the pretest achievement z-scores, mental age z-scores, and I. Q. z-scores. The residual gain, remaining after predicted gain was subtracted from the obtained gain, was considered to be a criterion of efficiency for each of the 17 teachers. Criteria for teachers with two or more classes were estimated by averaging residual gains. No evidence is given in the report of the significance of the beta weights for the independent variables in the multiple regression solution. Jones (15) has reported a study using the identical criterion scores developed by Lins.

Riesch (21) also drew upon Lins' work. He studied the correlates of pupil growth in social studies achievement, personality, social adjustment, conduct, and attitude toward the teacher using a criterion of teacher competence which he called "residual gain" but which he failed to define. One can only guess that his method of deriving the criterion was similar to that of Lins.

---

[3] The *F* test is that described by George W. Snedecor in his *Statistical Methods: Applied to Experiments in Agriculture and Biology*. 5th ed. (Ames, Iowa: Iowa State College Press, 1956), pp. 244–50.

BIBLIOGRAPHY

1. Ackerman, Walter I. "Teacher Competence and Pupil Change," *Harvard Educational Review*, XXIV (Fall, 1954), pp. 273–89.
2. Baird, James, and Bates, Guy. "The Basis of Teacher Rating," *Educational Administration and Supervision*, XV (March, 1929), pp. 175–83.
3. Barr, Arvil S.; Torgerson, Theodore L.; Johnson, Carl E.; Lyon, Vergil E.; and Walvoord, Anthony C. "The Validity of Certain Instruments Employed in the Measurement of Teaching Ability," in *The Measurement of Teaching Efficiency*, edited by Helen M. Walker (New York: Macmillan Company, 1935), pp. 73–141.
4. Betts, Gilbert Lee. "Pupil Achievement and the NS Trait in Teachers," in *The Measurement of Teaching Efficiency*, edited by Helen M. Walker (New York: Macmillan Company, 1935), pp. 144–237.
5. Bimson, Oliver H. "Do 'Good' Teachers Produce 'Good' Results?" *North Central Association Quarterly*, XII (October, 1937), pp. 271–76.
6. Brookover, Wilbur B. "The Relation of Social Factors to Teaching Ability," *Journal of Experimental Education*, XIII (June, 1945), pp. 191–205.
7. Coy, Genevieve L. "A Study of Various Factors Which Influence the Use of the Accomplishment Quotient as a Measure of Teaching Efficiency," *Journal of Educational Research*, XXI (January, 1930), pp. 29–42.
8. Crabbs, Lelah Mae. *Measuring Efficiency in Supervision and Teaching*. New York: Teachers College, Columbia University, 1925 (Teachers College, Columbia University Contributions to Education, No. 175). vii+98 pp.
9. Cureton, Edward E. "Validity," in *Educational Measurement*, edited by E. F. Lindquist (Washington, D. C.: American Council on Education, 1951), pp. 621–94.
10. Flanagan, John C. "Units, Scores, and Norms," in *Educational Measurement*, edited by E. F. Lindquist (Washington, D. C.: American Council on Education, 1951), pp. 695–763.
11. Gotham, R. E. "Personality and Teaching Efficiency," *Journal of Experimental Education*, XIV (December, 1945), pp. 157–65.
12. Hill, C. W. "The Efficiency Ratings of Teachers," *Elementary School Journal*, XXI (February, 1921), pp. 438–43.
13. Jayne, C. D. "A Study of the Relationship between Teaching Procedures and Educational Outcomes," *Journal of Experimental Education*, XIV (December, 1945), pp. 101–134.
14. Johnson, Palmer O., and Jackson, Robert W. B. *Introduction to Statistical Methods*. New York: Prentice-Hall, Inc., 1953. xx+357 pp.
15. Jones, Ronald DeVall. "The Prediction of Teaching Efficiency from Objective Measures," *Journal of Experimental Education*, XV (September, 1946), pp. 85–99.
16. La Duke, C. V. "The Measurement of Teaching Ability: Study Number Three," *Journal of Experimental Education*, XIV (September, 1945), pp. 75–100.

17. LINS, LEO JOSEPH. "The Prediction of Teaching Efficiency," *Journal of Experimental Education*, XV (September, 1946), pp. 2–60.
18. MCCALL, WILLIAM A. *Measurement.* New York: Macmillan Company, 1939. 535 pp.
19. MCCALL, WILLIAM A. *Measurement of Teacher Merit.* Raleigh, North Carolina: State Superintendent of Public Instruction [1952], (Publication No. 284). 40 pp.
20. MORSH, JOSEPH A., AND WILDER, ELEANOR W. "Identifying the Effective Instructor: a Review of the Quantitative Studies, 1900–1952." Chanute Air Force Base, Illinois: Training Aids Research Laboratory, Air Force Personnel and Training Research Center, Air Research and Development Command, 1954 (*Research Bulletin*, AFPTRC-TR-54-44, October, 1954). 158 pp.
21. RIESCH, KENNETH PETER. "A Study of Some Factors in Pupil Growth," *Journal of Experimental Education*, XVIII (September, 1949), pp. 31–55.
22. ROLFE, J. F. "The Measurement of Teaching Ability: Study Number Two," *Journal of Experimental Education*, XIV (September, 1945), pp. 52–74.
23. ROSTKER, L. E. "The Measurement of Teaching Ability: Study Number One," *Journal of Experimental Education*, XIV (September, 1945), pp. 6–51.
24. STEPHENS, J. M., AND LICHTENSTEIN, ARTHUR. "Factors Associated with Success in Teaching Grade Five Arithmetic," *Journal of Educational Research*, XL (May, 1947), pp. 683–94.
25. TAYLOR, HOWARD RICE. "Teacher Influence on Class Achievement: a Study of the Relationship of Estimated Teaching Ability to Pupil Achievement in Reading and Arithmetic," *Genetic Psychology Monographs*, VII (February, 1930), pp. 81–175.
26. THORNDIKE, ROBERT L. *Personnel Selection: Test and Measurement Techniques.* New York: John Wiley and Sons, Inc., 1949. 358 pp.
27. VON ESCHEN, C. R. "The Improvability of Teachers in Service," *Journal of Experimental Education*, XIV (December, 1945), pp. 135–56.

Johnny Appleseed: a Pilot Study of a Story-Centered Activity Program

By META NEWMAN

THE purpose of this paper is twofold: to describe the organization of a "core curriculum" program carried out in a class for mentally retarded adolescents; and to evaluate its results. The children involved in the experiment, eight girls and four boys, were all members of the oldest group in the Greene County School for Mentally Retarded Children, Yellow Springs, Ohio. Their ages ranged from twelve to eighteen and a half. Intelligence quotients varied from 38 to 51. Etiological make-up of the group was heterogeneous.

Martens,[1] Delp,[2] Hill,[3] and other contributors to the field stress the point of view that the school curriculum for the mentally deficient must be both practical and meaningful to the individual in order for learning to take place. The writer has observed, however, that there is the tendency to underestimate what can be meaningful to the retarded child. Programs for this group often overemphasize the practical aspects of life to the exclusion of the creative, sensory, and spontaneous areas of experience. As a result, the learning experiences of these children are meager and monotonous.

The writer felt that the use of challenging and interesting subject-matter in the classroom could serve as a provocative agent for enabling the children to cultivate fuller potentialities intellectually, creatively, and emotionally. To this end, it was decided to provide the children in the Greene County School with a story-centered "core curriculum" program based on the historical-legendary figure of Johnny Appleseed. For the purposes of this study the term *core curriculum* means the correlation of subjects into a meaningful whole. The regular academic subjects are to be regarded as tools by which the children build up an understanding of a particular theme.

Johnny Appleseed, born John Chapman, was considered an appropriate theme for this group because (1) he was an actual person; (2) there is a rich body of folklore based upon his adventures; (3) the philosophical views held by Chapman reflect, to an extent, the values we try to impart to the youngsters, such as kindness toward others and respect for the living, both plant and animal; (4) John Chapman made extensive plantings in the section of the country where these children live; and (5) the children are all familiar with apples and therefore concepts centered around apple-plantings, apple-cookery, and the like are within the realm of their experiences.

---

[1] Martens, Elise H. *Curriculum Adjustments for the Mentally Retarded.* Washington, D.C.: Federal Security Agency, 1950 (U.S. Office of Education, Bulletin 1950, No. 2).

[2] Delp, Harold A. "Curriculum Problems with the Mentally Retarded," *Training School Bulletin*, XLIX (December, 1952), pp. 187–203.

[3] Hill, Arthur S. *The Severely Retarded Child Goes to School.* Washington, D.C.: Federal Security Agency, 1952 (U.S. Office of Education, Bulletin 1952, No. 11).

Pollock and Pollock[4] suggest that the story form is the most satisfactory method of presenting history to the retarded child. In keeping with this, all historical information about Johnny Appleseed was presented to this group by a professional storyteller.[5] After much careful research and planning, six twenty-minute sessions were prepared. Within the framework of both the facts and fancies set down about John Chapman, the events of these stories were all possible.

Organization of the project, scheduled for three school weeks, adhered to the following outline:

1. The Language Arts
    - *a*) Listening to stories based on adventures of Johnny Appleseed, from birth to death[6]
    - *b*) Story writing for more advanced pupils
2. Academic Activities
    - *a*) Reading materials, number work, and science experiments designed for level of the group centered around the theme
3. Dramatic Arts
    - *a*) Early American dances
    - *b*) Dramatization of the stories
4. Plastic and Graphic Arts
    - *a*) Relief map of the general locale
    - *b*) Clay modeling of Johnny Appleseed
    - *c*) Drawings and paintings of Johnny Appleseed, apple orchards, and so on
    - *d*) Group mural

---

[4] Pollock, Morris P., and Pollock, Miriam. *New Hope for the Retarded: Enriching the Lives of Exceptional Children.* Boston: Porter Sargent, 1953, Chapters V, VI, XI.

[5] The writer's thanks are extended to Barbara Webb for assistance in the research and storytelling presentations.

[6] Titles and order of story presentation were as follows: (1) John Chapman Plants Apple Trees and Earns a New Name; (2) Johnny Appleseed's Travels and the Hats He Wore; (3) Johnny Appleseed Takes a Lost Child Back to Her Covered Wagon Home; (4) Johnny Appleseed, His Horse Becky, and a Lot of Other Animals; (5) The Indians Called Johnny Appleseed a Medicine Man; (6) Good-bye Johnny Appleseed.

5. Home Arts
    - *a*) Peeling and coring the apple
    - *b*) Preparation of apple dishes
    - *c*) Exploration of the uses of the apple
6. Social Arts
    - *a*) Games centered around the theme
    - *b*) Dramatic activities
    - *c*) Termination of the project by a Johnny Appleseed party planned by the children.

THE results of this experiment have shown that the use of the "core curriculum" approach enabled the children to internalize and expand upon material with a greater degree of spontaneity and creativity than was possible through the more formal procedures of drill and repetition. The results seem significant in that they reveal that the mentally handicapped, if properly stimulated, are capable of responding to all aspects of a given project.

In the area of the language arts, for example, I observed that all members of the group, even those at the lowest intellectual level, were able and, indeed, eager to follow the narrative line of these stories. The children, who were encouraged to write their own Johnny Appleseed stories, found that simple storywriting provided them with a new mode of communication. At first, the group composed stories together. The plots of their early stories followed the narrative line of the stories presented by the storyteller. In effect, the children repeated their stories in their own words with slight, if any, attempt at creating new ideas. Schaefer-Simmern[7] discusses this tendency toward perseveration in the graphic arts. His theory—that repetition of subject continues until the retardate is familiar and secure with the materials and facts—seems to be applicable to this area. Once the children felt secure in dealing with the subject-matter, they began to experiment and expand. The final result was that the youngsters began to write original Johnny Appleseed stories independent of each other and of all teacher help. The success of their stories gave them a new sense of importance and adequacy.

The following story was written by an eighteen-and-a-half-year-old girl, I.Q. 48:

---

[7] Schaefer-Simmern, Henry. *The Unfolding of Artistic Activity: Its Basis, Processes, and Implications.* Berkeley, California: University of California Press, 1948, pp. 33–67.

JOHNNY APPLESEED

Johnny saw 4 animals. One animal was a kangaroo. One was a crocodile. And two animals was a owl and a dog.

He liked the animals.

He had 2 apples.

He cut the apples in half.

He gave the apples to the animals.

This showed the animals he wanted to be friends.

The animals took the seeds out of the apples.

Now the animals knew how to eat apples.

He showed them how to play.

He went out with the animals. They were happy animals. And Johnny Appleseed was happy too.

This is the story of Johnny Appleseed and the animals.

This story is just one example of the spontaneous and creative thinking carried out by members of the class.

Prior to this project, only the most immature and uninhibited children in the class willingly participated in dramatics, but the interest that the children developed in the theme seemed to transcend their inhibitions so that practically all members of the group were anxious to participate. The dramatizations of the stories strengthened their knowledge of Johnny Appleseed. Repetition of the facts, through drama, gave the members of the group direction and enabled them to participate in sustained imaginary situations.

In the area of the graphic arts, I have frequently found that children of limited intellectual ability are often frustrated by the blank sheet of paper at the easel board. They are baffled by the teacher's request to "go ahead and paint." Providing the children with a provocative theme, in this case Johnny Appleseed, stimulated them and supplied an idea. Pictorial depiction thus became still another way of organizing and reviewing what the group had learned.

A group mural, designed and executed by the entire class, afforded the opportunity for co-operative interaction. Co-operation grew as a result of the communal interest. The mural also offered the children the opportunity to share their ideas and information about Johnny Appleseed.

THIS experiment has attempted to show a method of expanding curricular horizons for the mentally retarded. Perhaps it is not possible for retardates to delve deeply into an interest; however, they can be aided in broadening their knowledge and experiences.

In a heuristic study of this type, it is admittedly difficult to arrive at any definite conclusions. Nevertheless, I believe that this approach could be used with equal success in more of our classrooms. The story-centered activity program has revealed that the mentally deficient child can be taught to react and think spontaneously. Intellectual retardation need not mean intellectual poverty.

[Vol. XXXVII, No. 7]

* * *

MORE than 600 teachers from the United States and 42 other countries are taking part in the 1958–59 teacher exchange program, according to Lawrence G. Derthick, United States Commissioner of Education. With this year's exchange, nearly 5,000 teachers from the United States and 64 other countries will have participated in the program, which is now in its thirteenth year.

On August 8, 100 American teachers from 26 states left New York to exchange positions with 100 teachers from the United Kingdom who arrived in New York on August 12. An additional 68 teachers from Australia, Austria, Belgium, Canada, Chile, Cuba, France, Germany, Italy, the Netherlands, New Zealand, and Norway arrived in the United States in August for a year of teaching in American schools. An equal number of American teachers went abroad for classroom duty.

The program is part of the United States International Educational Exchange program of the Department of State and is arranged by the Office of Education, Department of Health, Education, and Welfare.

EDITORIAL COMMENT

The Passing of a Colleague

Many readers of the Educational Research Bulletin must have experienced a sense of personal as well as professional loss when they read the announcement last month of the passing of Ruth E. Seeger, research librarian in the Bureau of Educational Research and Service.

Miss Seeger was born at Hampton, Iowa, December 24, 1897. She attended Ellsworth College and received the Bachelor of Arts degree in 1923. For one year she was a teacher of English in the Union Township High School, at LeMars, Iowa. In 1925–26, she attended the St. Louis Library School, from which she received a Library Certificate. In 1926 she joined the staff of the Bureau of Educational Research at Ohio State University, as a bibliographical assistant; she continued as a member of this Bureau and its successor, the Bureau of Educational Research and Service, until her death. From 1946 to 1950, she was research librarian; from 1950 to 1956, research librarian and instructor; and from 1956, research librarian and assistant professor. She was a member of the Tenth Avenue Baptist Church, the American Library Association, and the Ohio Library Association. She was past president of Chapter V of the P.E.O. Sisterhood, an international organization devoted to promoting the education of women.

She was a highly competent reference librarian. The research library that she directed is widely known as one of the finest of its kind. She developed one of the best collections of educational research reports in the country. Her skill in locating educational materials and data was known far and wide. In one recent year, in response to special requests, she compiled forty-eight bibliographies, averaging fifty entries each. Of these requests, twenty-four came from the staff of the Bureau, four from other faculty members in the College of Education, one from a faculty member outside the College, eleven from professional workers in Ohio, and eight from workers outside the state.

Readers of the Bulletin will recall her articles and book reviews in this magazine. In addition, she was author or joint author of a number of published bibliographies, of which the most recent is *Writings by and about Boyd H. Bode* (1951). Her last published writing, except for one book review, is *Using Library Resources in Educational Research* (1957), a very useful distillation of her experience over three decades in helping students of educational problems.

Less conspicuous, but not less important than this written and published work, was the individual help she gave to the scores of persons who used the library every day. Her effectiveness in this was due, not only to her exceptional skill as a reference librarian, but also to her personal qualities. She was quiet and self-effacing, wholeheartedly devoted to her work, and always ready to help. Thousands of persons, many of them in important educational positions, have reason to be grateful for the assistance they received from her.

The writer numbers himself among these thousands. It was both an important professional benefit and a deep personal satisfaction to be closely associated with her for so many years.

R. H. E.

New Staff Members in the Bureau

We are happy to welcome four new members to the professional staff of the Bureau of Educational Research and Service. The first is Egon G. Guba, who on July 1 began his work as research associate and associate professor. He is a specialist in educational research. He did his undergraduate work at Valparaiso University and his graduate work at the University of Kansas (M.A.) and the University of Chicago (Ph.D.). He has been an instructor in mathematics and physics at Valparaiso, instructor and assistant professor of education at the University of Chicago, and associate professor of education at the University of Kansas City.

In 1951–53 he was research associate in the United States Air Force Instructor Research Project, and in 1955–57, research consultant to the Midwest Administration Center of the University of Chicago. He has also been a research associate of Community Studies, Inc., of Kansas City, Missouri, and consultant in the Gifted Adolescent Project conducted at the University of Chicago under the auspices of the United States Department of Health, Education, and Welfare.

In these research positions he wrote proposals, developed designs, devised and adapted instrumentation, gathered and analyzed data, and wrote summary reports. He has been active in a number of professional organizations and has made numerous contributions to the literature of educational research.

In the Bureau he is head of the Division of Educational Research. In addition to carrying on research individually and in collaboration with others, he will direct the work of graduate students and serve as a consultant to faculty members and students on research design and related matters. He will be the principal research consultant to the editorial staff of the BULLETIN.

The second person to join the Bureau was Eunice G. Lovejoy, who on September 8 succeeded Ruth E. Seeger as research librarian. Mrs. Lovejoy did her undergraduate work at Marion College and Madison College. She received her library training in the School of Library Science at the University of North Carolina, from which she received the degree B.S. in Library Science. She has carried a wide variety of library responsibilities at Goucher College, Rockingham Public Library (Harrisonburg, Virginia), Lynchburg College, and the University of North Carolina. During the past summer she was assistant librarian in the Education Library at Ohio State.

The third of the newcomers is Shirley Lipson, who on October 1 began work as assistant editor and instructor. Miss Lipson received her Bachelor's and Master's degrees in English at the University of Pittsburgh, and has completed about a year's work beyond the Master's degree toward a doctorate in the same field. She has been editorial assistant in the Bureau of Business Research at Pittsburgh. In the Bureau she will be assistant editor of the BULLETIN and of other publications of the College of Education and the Bureau.

The fourth new staff member is Ellyn G. Lauber, who is an instructor in the division of special education.[1] Miss Lauber received her Bachelor's and Master's degrees at Ohio State University, with specialization in the teaching of slow-learning children. She has been a teacher in a private school in Michigan, the public schools of Cleveland, Ohio, and the Training School at Vineland, New Jersey. She has served as research assistant in the

---

[1] Miss Lauber fills the vacancy created by the resignation of Assistant Professor Harold R. Phelps, who is now at Illinois State Normal University.

United States Department of Health, Education, and Welfare, and as director of education at the Edward R. Johnstone Training and Research Center, at Bordentown, New Jersey.

We look forward with pleasure to working with our new colleagues.

R. H. E.

A Correction

THE executive secretary of the Alexander Graham Bell Association for the Deaf, Inc., Mary R. Van Wyk, has drawn Mr. Schowe's attention to an error in his article "Some Observations on Sign Language" in the EDUCATIONAL RESEARCH BULLETIN dated May 14. The statement in the first three lines of page 124 is wrongly ascribed to Alexander Melville Bell. The footnote is also wrong. The statement is implied in the testimony of Alexander Graham Bell before the Royal Commission of the United Kingdom on the Condition of the Blind, the Deaf and Dumb, etc., and in two articles submitted at the time by Dr. Bell as exhibits. These were published by the Volta Bureau in *Education of Deaf Children*[1] (*see* Part II, pages 26, 150, 159).

Mr. Schowe, however, is not altogether to blame. He used a reference which had appeared in two publications.

* * *

ACCORDING to a recent announcement of the United States Civil Service Commission, applications are being accepted for Education Research and Program Specialist positions with the Office of Education, in Washington, D.C., and throughout the United States. The salaries range from $5,440 to $11,610 a year.

Appropriate education and professional experience in the field of education are required. Graduate study may be substituted for the required experience for positions paying $5,440 a year, and for part of that required for the higher levels.

Full information regarding the requirements and procedures for application may be obtained at many post offices throughout the country, or from the United States Civil Service Commission, Washington 25, D.C. Applications will be accepted by the Board of United States Civil Service Examiners, Office of Education, Washington, D.C., until further notice.

---

[1] Edited by Joseph C. Gordon. Washington, D. C., 1892.

BUREAU OF ED L. RESEARCH LIBRARY

EDUCATIONAL RESEARCH BULLETIN

ERB

NOVEMBER 12, 1958

COLLEGE OF EDUCATION
THE OHIO STATE UNIVERSITY

Vol. XXXVII, No. 8

EDUCATIONAL RESEARCH BULLETIN

(Entered in the United States Patent Office)

R. H. Eckelberry . . . . *Editor*
Shirley Lipson . . . . *Assistant Editor*

PUBLISHED BY THE BUREAU OF EDUCATIONAL RESEARCH AND SERVICE, OHIO STATE UNIVERSITY, FOR THE SCHOOLS OF OHIO. EDITORIAL OFFICE, ROOM 173; BUSINESS OFFICE, ROOM 195, ARPS HALL, COLUMBUS 10, OHIO

ANNUAL SUBSCRIPTION ONE DOLLAR ($1) TO PERSONS LIVING OUTSIDE OHIO

CONTENTS

The Student Personnel Program in the College of Education 197
Collins W. Burnett, *Ohio State University*

The Development of Pupil-Growth Criteria in Studies of Teacher Effectiveness 205
Harold E. Mitzel and Cecily F. Gross, *College of the City of New York*

Acceptance and Performance among Gifted Elementary-School Children 216
Meta F. Williams, *University of Bridgeport*

Editorial Comment 221

Readings 223
The Child and His Elementary School World.

The Educational Research Bulletin is published monthly except during June, July, and August. Entered as Second-Class Matter, February 9, 1922, at the Post Office at Columbus, Ohio, under the Act of August 24, 1912. Accepted for mailing at specified rates of postage provided for in Section 1103, Act of October 3, 1917, authorized February 21, 1922.

Educational Research Bulletin

NOVEMBER 12, 1958

Vol. XXXVII, No. 8

The Student Personnel Program in the College of Education

By COLLINS W. BURNETT

THE student personnel program in the College of Education at Ohio State University has undergone many modifications since 1928 when George W. Rightmire, then president of the University, set up the position of Junior Dean in each of the five undergraduate colleges. The Junior Dean's main function was to serve as a student personnel administrator with especial concern for the problems of the freshman and sophomore students. Now, thirty years later, even the title of Junior Dean has been discarded for more impressive ones such as Co-ordinator of Student Personnel and Assistant Dean. To some people, the "student personnel program" suggests a point of view or attitude which establishes a friendly, permissive climate for students; to others, the phrase means personnel who work closely with students in a non-textbook relationship; and to still others, the term means techniques such as counseling, testing, and the use of occupational information. In reality, all three of these concepts—philosophy, personnel, and techniques—are valid ones to use in describing the student personnel program in the College of Education.

Any philosophical considerations for the College of Education have to be determined within the larger context of a land-grant university. Historically, there has been little emphasis on selective admissions procedures. Generally speaking, any graduate of a four-year high school in Ohio has been eligible for admission to the University and enrollment in one of the five undergraduate colleges. More than 250 programs of study are available to students who for the most part are residents of Franklin County and northeastern Ohio, areas which have become highly industrialized during the last twenty years.

The distinctive function of the College of Education is to prepare teachers. Although some of the students are enrolled in three other areas—professional art, professional music, and occupational therapy—the main stream of activity is teacher preparation; hence the student personnel program in the College of Education has an underlying basis which makes it different from other student personnel programs: the welfare of the individual student becomes secondary in importance to what is best for children in the public schools. In all of the counseling relationships, the first consideration is not that the client wants to become a teacher but rather that he needs help in determining whether he meets the criteria (scholarship, speech and hearing, proficiency in written English, professional rating, and health—both physical and emotional) for becoming a good teacher.

A second distinct characteristic of the philosophy of the student personnel program is the development of a close, personal relationship between students and faculty. This is indeed important since many of these young people will become teachers and will tend to adopt some of the same personnel attitudes toward their students which they encountered when they were students.

Still another philosophical consideration is the importance of providing a psychological climate in which there is a balance between sufficient student personnel services and adequate opportunity for students to develop a sense of maturity and self-direction. Instead of viewing education as a dynamic process with unlimited opportunity for creativity and intellectual curiosity, many students tend to settle into a passive acceptance, wanting to be told when to study, which activities to join, and which courses to schedule. In developing a student personnel program, it is important not only to determine student needs, but also to decide which needs can be met by faculty and student personnel efforts and which ones should be met by students themselves.

WHO are the people who are responsible for the student personnel program in the College of Education? In a general way, the student personnel program is everyone's responsibility: the Dean and his administrative staff, the faculty, and the staff in the College Office and departmental offices where many students form their first impressions of the College. At the University level, which will be discussed later, there are also key people who contribute to the College's program of services for students.

By far the largest group of people who are interested in student welfare are the faculty who have the advantage of knowing about absence, poor scholarship, and behavioral problems. The College librarian, for example, on numerous occasions has performed a guidance function with students by helping them locate and develop resources for a term paper, or find a congenial rooming house; by arranging for a loan of money which is provided by a professional group; by providing a part-time job in the library; and by referring a student who is emotionally upset to the student personnel staff. Most of the faculty either because of professional training or sensitivity to student concerns have a strong feeling of responsibility in working closely with a student who by his behavior indicates some need. If the problem becomes serious enough to suggest the need for specialized professional attention, the student is referred to one of the counselors on the student personnel staff.

Two of the key groups of the faculty who regularly render outstanding student personnel service are the advisers and the co-ordinating advisers. In each department of the College there are faculty members designated as advisers who are responsible for working closely with students. They evaluate students in terms of probable teaching success, help plan course schedules, recommend approval of student petitions, recommend students for teaching positions, or refer students for professional help. Many times due to the adviser's alertness a student problem such as absence from class is spotted early enough so that the adviser and the student can work on the problem before it becomes critical.

The co-ordinating advisers, as the name suggests, are a group of faculty members who co-ordinate advising, scheduling, and other personnel matters in their respective areas. This group, which was organized about 1938, meets twice a month to discuss problems, learn about new developments in the College and the University, and suggest changes in personnel procedures. In the case of the School of Fine and Applied Arts and the School of Music, for example, where many personnel procedures are autonomous, the two co-ordinating advisers perform a heavy personnel function in addition to some teaching responsibility. Not only is each of these persons a leader in the development of the student personnel program in his own area, but he also assists in the orientation of new faculty members and co-ordinates information and problems which arise in his area with the student personnel staff of the College.

From one standpoint, the Co-ordinator of Student Personnel and his staff function as the CIC (Combat Information Center—a Naval term designating the nerve center aboard a combat ship where all communications are controlled and incoming data about enemy planes and ships are processed). The College Office serves as the control point for all of the important data concerning closed courses, new sections of courses, absence reports, grade sheets, petitions, dismissals, reinstatements, requests for point hour for honorary organizations and Selective Service, graduation requirements, permanent record cards, withdrawals, adding and dropping courses, and results of the mathematics and English placement tests. Sometimes in the press of rush periods, which seem to occur with frightening regularity, with the constant ringing of telephones, the swarms of impatient students, and the frantic requests of faculty, the CIC seems more than a figure of speech.

From another standpoint, the student personnel staff functions as a closely knit team in co-ordinating, administering, and planning the personnel program. Service to students is paramount, but service to faculty who are working with various kinds of student problems is also important. Perhaps an hour or two spent in orienting a new faculty adviser to the mysteries of the College *Bulletin* or the vagaries of campus rules and regulations may bring about a more sympathetic understanding of student behavior. Important relationships also have to be established and maintained with personnel administrators in other college offices as well as with those who are in charge of key student personnel functions at the University level.

Although there are many persons at the University level whose work relates closely to the College student personnel program, only a few will be mentioned to establish the point that both groups of personnel and the two programs—College and University—are interdependent. The common goal is to further the progress and development of the student.

Numerous student personnel relations have been developed with the Executive Dean, Student Relations, who is a member of the President's Cabinet, and his staff which includes the Dean of Men, Dean of Women, Director of the University Counseling and Testing Center, and directors of the University Health Service, Scholarships Office, and Student Financial Aids Office. A staff rather than a line relationship exists between the College student personnel people and these members of the University student personnel area. The Co-ordinator of Student Personnel has a line relationship to the Dean and the Associate Dean of the College of Education. Similar staff relationships exist between the College student personnel area and the Executive Dean, Special Functions, who is also a member of the President's Cabinet, and whose staff includes the Registrar and the University Examiner.

THE story goes that one day when William Lowe Bryan, the late president of Indiana University, was walking across the Bloomington campus, an old graduate stopped him to ask, "President Bryan, why is it that each year this university graduates so many fools?" The president replied, "Because, each year we admit so many fools." At Ohio State also the problem of graduating only qualified students arises because very little has been done in the way of selective admissions procedures (the School of Music does have a well-developed admissions program which is permitted by legislative enactment). The fact that natural selection is operating is demonstrated by research studies which show that approximately 40 per cent of those students who enter the College as first-quarter Freshmen are not around to be counted by the beginning of the fourth quarter. Moreover, about 65 per cent of the graduating Seniors did not start in the College as first-quarter Freshmen.

The College at one time had an admissions program, but the trend in recent years has been to develop a retention program, a set of criteria to help the student evaluate his progress. This program of progressive retention which operates in all the teacher-preparation areas is implemented, first, by Education 408, formerly Education Survey 407,[1] which is intended as an orientation and introduction to the study of education. Second, Provisional Acceptance for Teaching, which must be met before student teaching can be scheduled, consists of satisfactory clearance on health, speech and hearing, professional rating, a minimum cumulative point-hour ratio of 2.0, and an average of *C* for the three courses in the freshman English sequence. Third, student field experience permits the evaluation of students in September Field Experience, leadership experience in selected community agencies, and student teaching which is scheduled in the senior year.

---

[1] Burnett, Collins W., and Seeman, Alice Z. "Guidance of College Freshmen," *Journal of Teacher Education*, III (March, 1952), pp. 19–22.

Any discussion of the scheduling and advisory programs points up the complexity and diversity of the student personnel program; scarcely any part of the program can be discussed without several qualifications and parenthetical statements. The Schools of Music and Fine and Applied Arts and the Department of Occupational Therapy, however, have developed techniques for scheduling and advising which, while they are related to those in the other areas of the College, are somewhat independent.

Except for one very large area in teacher education, helping the students plan their schedules of course work each quarter is a function of the advisers in various areas. Partly as an effort to provide scheduling assistance to students who are in elementary education, a plan for a Consultant's Day was developed which provides for faculty advisers to be available on an announced date so that students may go to a certain designated conference location or to the advisers' offices to get help with scheduling problems.

In a general way, the advisory program for most Freshmen who are in teacher education starts with Education 408, because when students schedule this course in the Autumn Quarter the instructor also serves as the adviser. Members of the student personnel staff serve as advisers to those Freshmen who cannot schedule the course until a later quarter. Following the freshman year, the student is assigned to a permanent adviser in his major area at the time of the "declaration interview" which must be initiated by the student between the second and fourth quarters. Continuity in the advisory program, therefore, is established for the student from the first quarter of enrollment through graduation.

The declaration interview, which is a recent development, is an intriguing "package" plan in which a one-hour interview with the student at the time he declares his major area provides the following: assignment to an adviser, completion of an area sheet which shows the courses completed and those to be completed before graduation, a review and planning of student field experience, and a review and explanation of the retention program, Provisional Acceptance for Teaching. This latter program permits the student the freedom of at least nine quarters in which to demonstrate his competence—if he started in the College as a first-quarter Freshman. Regardless of when the student enrolled in the College, he must meet all five requirements of the Provisional Acceptance for Teaching before he registers for student teaching, which cannot be done until the senior year.

Counseling is central in the student personnel program. Students are referred for counseling to a member of the College student personnel staff, perhaps by an instructor or adviser, or the contact may be self-initiated. Counseling problems are most frequent in such areas as low scholarship, challenging the superior student, indecision about vocational choice, emotional adjustment, and difficulty in meeting some College or University requirement for graduation. Counseling is primarily in the pattern of a series of one to three interviews in which screening, diagnosis, and clarification help the student reach his own decision. In many cases, the nature of the interview can be described as one in which information is presented or some confusion about a regulation is clarified. When the counselor decides that the problem of emotional upset is serious, he refers the student to a psychiatrist in the University Health Service or in less severe cases to a counselor in the University Counseling and Testing Center or the Mental Health Clinic. Neither at the College nor at the University level is there adequate opportunity for prolonged therapy with severely regressed behavior cases, which suggests that such a student can be helped best by withdrawing him from the University and helping him arrange for private treatment.

Although the Registrar's Office maintains the official student record from which transcripts are made, the College Office is responsible for the student personnel folder which contains the IBM permanent record card with the quarter-by-quarter listing of courses, marks, cumulative point-hour ratio, and entrance test scores; copies of letters sent to the student or to the adviser; petitions; counseling notes; letters of recommendation to prospective employers or to agencies for scholarships; changes of course; Selective Service Ratings; and absence reports.

BECAUSE of the democratic philosophy of the College, many policies and decisions which affect the student personnel program are established by committees, and one or more students are important participants in most of the major ones. The Committee of Co-ordinating Advisers, which is composed of key advisers from all areas of the College, discusses problems and suggestions pertinent to the advisory program. The Committee for the Student Personnel Program initiates procedures and plans and implements policy in all areas of student personnel. The Petitions Committee, which meets about once a week, reviews and decides on all petitions for reinstatement or requests for some departure from established procedure. About once each quarter the Committee for Degrees with Distinction has the pleasant task of reviewing records of superior students (those with a cumulative point-hour ratio of 3.5 or above) who are graduating to decide which ones to recommend to the faculty for degrees with *cum laude* or *summa cum laude*.

Developing an active participation in College affairs on the part of the students is another aspect of the student personnel program. In addition to the numerous student honoraries in the various departments, there are clubs which represent specialized interests, such as the Association for Childhood Education in the area of elementary education.

The Education Student Council, which is partly honorary but is also an important service group representing the entire College, is one of the key student groups to improve relationships between students and faculty. In addition to nominating student members for most of the important College committees, the Council contributes to the development of leadership and responsibility throughout the year. During the 1957–58 academic year, the Council planned the orientation meeting for new Freshmen, initiated a series of fireside chats with students and faculty, planned a recognition tea for Freshmen with scholarships, and organized an all-day conference of students and faculty to evaluate all aspects of the College program.

Although scholarships, loans, and part-time jobs are aspects of student personnel work which are centralized for the most part in University-level offices, the College takes significant action in these areas also. In addition to helping select one hundred Freshmen for teacher-education scholarships, the student personnel staff recommends many other students each year for general University scholarships. Numerous loans are effected through the help of a rotary fund established by Phi Delta Kappa. Some part-time jobs are also "discovered" and made known to students whose need has become clear through counseling.

Although student teaching and placement have strong personnel connotations,[2] both areas will only be mentioned because each is administered outside the student personnel program. Its staff, however, does contribute significantly to them.

[*Continued on page 224*]

---

[2] Dickson, George E., and Burnett, Collins W. "A Student Personnel Approach to Student Teacher Placement," *Educational Administration and Supervision*, XLI (November, 1955), pp. 390–96.

The Development of Pupil-Growth Criteria in Studies of Teacher Effectiveness

By HAROLD E. MITZEL AND CECILY F. GROSS

NOTE.—In the October issue of the BULLETIN, the authors presented a brief review of twenty research studies dealing with the use of pupil growth as an aid in the assessment of teacher effectiveness. These studies covered the educational literature of a thirty-year period, from 1921 to 1951. In the second section of the paper, which follows, a number of fundamental questions are raised concerning the philosophy, conduct, and analysis of research employing pupil growth as a criterion of teacher effectiveness. The reader is reminded that the bibliographic sources can be found at the end of the first section of this paper in the October issue of the BULLETIN (pp. 186–87).

AN ANALYSIS of the attempts to devise pupil-growth criteria as measures of teacher proficiency reveals serious weaknesses. In some cases the deficiencies resulted from poor administrative conditions or from the lack of funds for a maximum research effort. On the other hand, many of the studies cited in the first part of this paper could have been improved by the use of more rigorous procedures; others, by the researcher's preliminary clarification of certain fundamental issues.

On the following pages, we list some of the basic questions of logic and methodology involved in the measurement of teacher competence in promoting pupil growth. The more philosophical questions deal with the conceptualization of the problem of evaluating teaching effectiveness. Other questions deal with experimental conditions or controls for research design. A third group concerns the appropriateness of different methods of analysis and the necessity for taking into account a number of sources of variation. The researcher's position on these questions, whether explicit or implicit, inevitably influences his research design. Furthermore, recognition of the limitations placed upon the interpretation of results by imperfect controls or by the assumptions on which the statistical method is based prevents the drawing of unwarranted conclusions.

For the past fifty years, most research has been based on the assumption that teaching competence is a unitary trait. Although the degrees of effectiveness among teachers have long been realized, many educators still seem to assume that the teacher who stimulates the greatest pupil growth in one basic skill will stimulate the greatest growth in other specific skills as well as in problem-solving, social adjustment, and all other desirable outcomes. Moreover, they also seem to assume that the effective teacher is equally effective with all children. Until these assumptions are supported by empirical evidence, it is perhaps more reasonable to assume that the effectiveness of teachers may vary from goal to goal and, therefore, that research be conducted on pupils' achievement of a wide variety of different goals. Ackerman (1: p. 285) states the case for a multidimensional concept of teaching competence:

> The study of teacher effectiveness must assume the possibility of different kinds of effectiveness for different kinds of teachers, pupils, programs or situations. Inherent in the idea of effectiveness is a potential variety of "effectiveness." Research can attempt to discover the various kinds of effectiveness. It cannot tell us which is the best or most desirable. This is a judgment which each individual must make according to his own educational goals and values.

The probable multidimensional nature of teaching effectiveness assumes practical importance when one must decide whether or not to combine different pupil-growth measures into a composite labeled "effectiveness." That teachers who were effective in teaching reading were not always effective in teaching arithmetic and vice versa is illustrated by Taylor's (25) study. He found a correlation of .232 between arithmetic gain and reading gain, although the reliabilities for these growth criteria were .864 and .415, respectively. If Taylor had combined these two types of effectiveness, it would have been rather like describing an individual's appearance by the sum of his height in inches and his weight in pounds. A rule of thumb might be that two or more pupil-growth measures should *not* be combined unless their intercorrelations are of the same order of magnitude as their separate reliabilities (26).

The work of McCall (19) suggests a complete adherence to the concept of unitary effectiveness, but in the operational definition of his growth variables, he does not postulate that all growths are identical with one another. The study of Lins (17) is seriously defective on this score. Lins compared the effectiveness of high-school teachers of biology, civics, English, social science, and general science on the basis of different standardized tests given to their respective classes in these subjects. Certainly it is illogical to regard five tests of five different subjects as measures of a single attribute. Transformation of the data into standard scores in no way meets this basic objection. The study by Bimson (5) errs in the same manner by treating scores in algebra, general science, and history as equivalent.

A rational criterion of equivalence of tests is needed. In the absence of such a criterion, we can only repeat our suggestion that unless the intercorrelations are of the same order as the reliabilities, measures of growth should not be combined. To use one test for one class and a different test for another (unless they have been shown to be equivalent) is indefensible.

The studies done by Wisconsin students under Barr's direction are not firmly committed to either the assumption of unidimensionality or the assumption of multidimensionality. Rostker's study (23) is a case in point. Rostker analyzed his eight growth measures separately, in various combinations, and as a composite of all eight. Although no statistical principles are violated, there appears to be no reason for combining the growth measures since their intercorrelations were uniformly low. The most plausible conclusion is that his different tests measured different growths which may have been stimulated in part by different kinds as well as different degrees of teacher effectiveness.

The examples cited show that the researcher's answer to the question about the nature of teaching effectiveness, which at first appeared to be purely philosophical, exerts a crucial influence upon the practical conduct of his investigation.

THE social importance of any investigation of teaching effectiveness depends upon the relative rank of the growth measured in some hierarchy of educational objectives. For this reason, attempts to measure pupil growth should be preceded by thoughtful consideration of the comparative importance of various educational goals. Presumably those growths judged most important ought to be measured first, depending upon whether suitable and adequate measuring devices exist or can be constructed. McCall's study (19) is a model as regards the attention given to defining and ordering educational objectives for the elementary schools of North Carolina. A panel of experts assisted in choosing and weighting different areas of pupil growth.

Consistent with some value system, any logical procedure for deciding which kinds of growth to measure is clearly preferable to the method of using whatever test results happen to be available in school files. The research by Betts (4) illustrates a procedure in which Stanford Achievement Test data already on file determined the type of pupil growth that was measured. This sort of planning suffers from two major weaknesses. Unless researchers collect their data personally, rather than depend upon teachers or school supervisors to give tests to their own pupils, standardization of test administration is hard to ensure. Furthermore, if the teachers conduct the initial testing of their pupils, the possibility that some of them will teach for mastery of specific test materials becomes dangerously high.

Involved in the selection of growths for measurement is the problem of choosing adequate measuring instruments. In addition to meeting technical standards, the selected tests ought not to impose "floor" or "ceiling" effects. This limitation is especially crucial in those studies which attempt to control mental ability by means of the accomplishment quotient. Tests with too low a "ceiling" will tend to show an artificial negative relationship between growth and mental ability. As a result of this distortion, bright children with higher initial scores appear to show less gain than duller children whose initial scores were low. Crabbs (8), in particular, was aware of this difficulty, although she depreciated its influence upon the growth criterion. As noted above, La Duke (16) and other Wisconsin investigators also discuss the effect of test "ceilings."

Pupil-growth research, to be worth while, must deal with major school objectives. Therefore, a great deal of attention needs to be given to the problems of defining growths consistent with a hierarchy of educational goals, and of selecting or building devices to measure their attainment.

THE problem of deciding how the objectives chosen for measurement by researchers be related to those sought for pupils by teachers involves the distinction between a teacher's success in doing what he is trying to do and his success in doing what, for purposes of the study, the researcher thinks he ought to be doing.

It may be argued that if Teacher A believes that reading ability is the most important school objective at the elementary-school level and if Teacher B believes that "learning to work together" is the prime objective, then, on the assumption that both teachers teach according to their convictions, the reading achievement of the respective classes may be fundamentally incomparable indexes of teaching effectiveness. If, on the other hand, the research worker specifically wants a measure of effectiveness in the teaching of reading, he may consider the private-goal hierarchy of individual teachers as irrelevant.

One way of reconciling the educational objectives set by investigators with those of teachers is to measure pupil achievement of goals which are restricted in scope. Almost all elementary-school teachers stress the necessity for teaching children to read and compute, but they may differ widely in their ideas of the relative importance of economic as contrasted with physical geography. Those researchers who desire that the goals of teachers match the abilities of pupils chosen for testing will probably encounter fewer difficulties in the measurement of gain in skill areas, such as reading comprehension or arithmetic fundamentals, than in subject areas, such as geography and science. Nonetheless, the advantage derived from restricting the growth area to be measured ought not to involve a compromise with the choice of the most important educational objectives.

In the studies reviewed, very little attention was given to the relationship between teachers' objectives and the kinds of measured pupil achievement. However, centralized curriculums and courses of study on a state-wide or city-wide basis, questionable though they may be to some educational philosophers, have facilitated the research of certain investigators by providing standardized objectives. The study by Brookover (6) was based on the use of two forms of a United States history examination prepared by the Indiana State Department of Instruction. The same course of study and textbook were used by all 66 teachers and their pupils. Rostker (23) made certain that his 28 teachers had common objectives for two short-term units in social studies by specifying four or five major subtopics for each unit. The teachers were free to develop methods, materials, and content.

In whatever way research workers resolve the question of possible conflict of purpose, they ought to be aware of its implications for the interpretation of their findings.

For ideal experimental control of the effects of teachers other than those under study, growth should be measured on pupils who are taught by only one teacher. Under present-day systems of school organization, the nearest approximation to this ideal can be found in the elementary grades. Although even at the elementary-school level pupils have art, music, and other special teachers, the effect of such teachers in the lower grades can more readily be ascribed to a general school effect than at the high-school level. In a departmentalized high school, it is unlikely that all social-studies teachers, for example, will refrain from teaching language skills. Nor would it be considered desirable that they do so. Still, the efforts of social-studies teachers could bias the results of a study of the effectiveness of the English teacher as measured by pupil growth in English. Therefore, it seems easier at this stage in the development of pupil-growth criteria to impose gross experimental control by concentrating on the study of elementary-school teachers and pupils. The necessary replication at the secondary level will undoubtedly need to reckon with this source of error.

In the studies of Brookover (6), Lins (17), Jones (15), and Bimson (5), all based on high-school pupils taught by more than one teacher, no attempt was made to control the growth criteria for possible influence by teachers of other subjects.

There are two chief ways of controlling possible differences in pupil growth from one grade to another. One method requires an adequate sample of teachers and pupils from each of a number of grades. This procedure represents a project of great magnitude and complexity. An alternative method has the advantage of keeping the study within manageable proportions. A single growth study can be limited to the measurement of pupils in a single grade or a small grade range. Future replicative studies, however, would be required to answer the question whether teacher behaviors related to effectiveness are the same at all grade levels.

Restricting the grade range to be covered in a single study offers other advantages related to the problem of selecting appropriate educational objectives for measurement. The use of sample teachers from a single elementary grade is more likely to ensure that the curricular aims of all the teachers under study are as nearly alike as possible. Furthermore, by drawing classes from a single grade, the researcher reduces the likelihood that variations in the hierarchy of importance of educational goals may be encountered. Arithmetic is an example of a skill subject for which the objectives of instruction change from grade to grade. Comparing growth in fourth-grade arithmetic with growth in eighth-grade arithmetic may yield differences primarily because of the unlike emphasis placed on arithmetic instruction in the two grades.

Investigations by McCall (19) and Stephens and Lichtenstein (24) are noteworthy for their control of the grade factor as a source of error. Studies in which this bias was uncontrolled have been reported by Crabbs (8), Barr *et al.* (3), Betts (4), and Taylor (25). In these latter studies, growth was measured upon a scattered sampling of classes from a range of grades.

It is reasonable to expect that part of a given teacher's effectiveness is attributable to what may be called a "school effect." Sources of this influence upon teacher performance, and consequently upon pupil growth, probably include the nature of the teacher's supervision, the adequacy of the physical plant, class-size policy, and the availability of materials and educational aids. The investigator, in attempting to identify differences among teachers, will need to incorporate in his design a method of identifying variance among schools as well as among the teachers within schools.

Studies included in this survey revealed lack of awareness of this problem. Those concerned only with teachers of one-room rural schools are perhaps somewhat less subject to this criticism than those in which several teachers from each of a number of heterogeneous schools are included. However, even in the case of rural-school studies, the data should be examined for specific biases produced by differing community conditions.

Almost every teacher believes that his pupils as a group possess certain tendencies or characteristics which either accelerate or retard growth. This kinds-of-pupils variable deserves the careful attention of the research worker. Unless pupil characteristics are controlled, the results of investigations have no general applicability.

It is common practice among school administrators to group pupils into classes on the basis of intelligence, social maturity, chronological age, or problem behavior. Although some of these factors, like intelligence, can best be controlled in the analysis of data, the control of others must be provided in the experimental design. One scheme for experimentally controlling extraneous variables that enter into pupil growth is the random assignment of pupils to the classes of a given grade in a given school. Although random assignment may require much persuasion in the field, it must be conceded that effects due to pupil characteristics cannot be controlled without some randomization.

None of the studies reviewed in the present paper have indicated that pupil effects were controlled nor even that the necessity for control was recognized. The attempts of certain investigators to control their designs specifically for a few variables like socioeconomic status, class size, and sex distribution is no substitute for randomization. Randomization is essential in order to spread the effects of *unknown* as well as *known* etiological factors, and thus to ensure the validity of whatever tests of significance are applied to the data.

THE last group of fundamental questions concerning pupil-growth research and its evaluation involves the choice of an analytic model appropriate to the data. The least adequate of the three techniques commonly used for the development of teacher-competence criteria based on pupil growth is raw gain. This technique assumes equality of units at every point in the score distribution and provides no means for controlling important sources of variation.

The major objection to the achievement-quotient technique rests on metrical grounds. The surrender of the information contained in pupils' raw scores for an age-equivalent ratio seems to be a wholly unnecessary sacrifice, since ratio scores can never yield more information than is contained in the raw scores from which they were derived. Johnson and Jackson (14) point out that adding, subtracting, multiplying, or dividing ratios such as $R=X/Y$, where Y varies from individual to individual, compounds errors of measurement. These arithmetic manipulations give rise to unjustifiable statistical inferences. Weaknesses of the achievement quotient are also discussed by Flanagan (10) and Cureton (9).

The technique applied in the majority of the recent studies of pupil growth is the multiple-regression method. As used in the Wisconsin studies to arrive at index scores for teachers, the method is defective because the average gain score, the *predicted* variable, is not derived independently of the average initial score which is used as a *predictor* in the multiple-regression equation. For any given final score, a functional negative relationship must exist between a corresponding gain score and an initial score. In the Wisconsin studies the negative relationships found between pupil gain and pretest scores were attributed by the authors to "ceiling effects" of the tests employed. A more likely explanation is that the negative relationships are statistical artifacts based on the lack of independence of the two measures. This violation of statistical independence among the variates masks real differences that may exist among the means of classes. This defect in criterion development is characteristic of the studies reported by Rolfe (22), Rostker (23), Lins (17), Jones (15), Gotham (11), Von Eschen (27), and La Duke (16), despite their minor variations in the method of deriving residual pupil-gain scores.

Although the analysis of covariance has been available for thirty years, we have not found a single instance in which this technique was employed to secure a pupil-growth criterion. When its assumptions are fulfilled, the analysis of covariance is an eminently more appropriate model for establishing a pupil-growth criterion than either the multiple-regression or the achievement-quotient methods. The covariance technique enables the investigator to analyze the differences between the means of the final scores of a pupil measure for any number of classes and to adjust those means for the concomitant variation existing in the initial test score and for one or more other independent variables, such as mental ability. In this way covariance obviates the problem of lack of independence among the variables encountered in the use of residual-gain criteria obtained by multiple-regression methods. Moreover, covariance analysis is superior to multiple-regression analysis, because it takes into account all of the information contained in each individual score, whereas the latter method characteristically deals with class means. Adjustments in criterion means for independent variates are based on within-class regressions, rather than on between-class regressions as in multiple-regression solutions. If the relationship between dependent and independent variables is closer for class means than for individual pupils, then multiple regression "adjusts away" part of the variation among classes that the technique is designed to estimate and therefore conceals part of the differences among teachers.

ALMOST all investigators have recognized the necessity for controlling the differences in intellectual ability of the pupils of those teachers to be compared. We do not expect dull children to make as much progress toward educational goals as bright children. Obviously, teachers of dull groups ought not to be handicapped, nor teachers of bright groups given an advantage in the comparison process.

The importance of controlling mental ability has been recognized by those research workers who used multiple-regression techniques, but there seems to be no particular point in partialing out the effects both of mental age *and* intelligence quotient, as Lins (17) has done. Still other investigators have proposed that the control of learning potential be accomplished by means of a complex matching technique. Johnson establishes the case against the use of a matching technique:

> Although the process of pairing serves to increase the sensitivity of the experimental observations, a considerable practical difficulty is encountered in obtaining representation throughout the range of variation. There is difficulty in securing a basic character that correlates highly enough with the criterion to ensure closely homogeneous groups. There is also considerable loss in information in that couples cannot be found for all individuals particularly if the standards of pairing are rigorous. In any case, selection is always a hazardous process since the nature of the sample becomes more uncertain as more or less arbitrary selection of individuals to be paired takes place. A further difficulty arises from the fact that the difference in the mean effect of the contrasted factors may depend upon the character or characters used in matching.[1]

If an investigator uses covariance technique and first partials out the effects of initial test on final test, additional control of a mental-ability score for each pupil may yield very slight further reductions in the several variance estimates. The factor governing whether elimination of the mental-ability effects results in a larger or smaller adjustment to the criterion depends upon the correlation of mental ability and initial test score. The closer this relationship is, the smaller the mental adjustment to the final test score will be. The covariance technique undoubtedly provides a way of treating mental ability which is more adaptable to the practical demands of educational situations than either the achievement-quotient or the multiple-regression technique.

---

[1] Barr, Arvil S.; Davis, Robert A.; and Johnson, Palmer O. *Educational Research and Appraisal*. Chicago: J. B. Lippincott Company, 1953, p. 233. (Lippincott Series in Education).

Analysis of variance and covariance techniques provides an independent estimate of error in the form of the variation within the classes of pupils. The frequently used multiple-regression technique, however, offers no such built-in self evaluation since the variates are class means.

Having developed a pupil-growth criterion for assessing teaching effectiveness, the research worker should be expected to determine and report its power to discriminate among teachers. This power can be represented by an appropriate measure of the reliability of the growth criterion. Reliability is the chief quantitative aspect of any criterion, since the square root of the reliability coefficient represents the maximum correlation that can be found between even a perfectly reliable predictor variable and the criterion.

Failure to provide an estimate of the reliability of the growth index scores in discriminating among teachers is an almost universal shortcoming of the published research. There are two exceptions. Taylor (25) adapted the Spearman-Brown technique to his pupil-progress measures in reading and arithmetic by dividing the classes of pupils into random halves and correlating the gain scores of the halves. He found a corrected reliability coefficient of .415 in reading progress and .864 in arithmetic progress. Betts (4) used a similar method for his Stanford Achievement scores, estimating the reliability of the mean gain scores for 54 classes to be .895. The other researchers whose work we have reviewed either did not realize the significance of this question or expected their readers to accept their criteria on faith.

The multidimensionality of teaching competence makes the problem of assessing this area much more complex than originally believed by some investigators. Before a solution can be attempted, a specific hierarchy of educational goals and also adequate tests or other measuring devices for estimating pupil achievement must be devised.

Acceptance and Performance among Gifted Elementary-School Children

By META F. WILLIAMS

It is generally conceded that wasteful numbers of intellectually gifted children in public elementary schools do not perform to capacity in academic and social areas. Over the years, corrective measures such as acceleration, enrichment, and segregation have been tried and found wanting. Nevertheless, evidence has been accumulating to the effect that curricular changes can render the gifted child more accepting of, and more acceptable to, his classmates. This article summarizes the results of the writer's research to determine whether acceptance, in turn, can significantly influence performance.

In the initial step, three elementary schools of suburban Connecticut furnished a sample of 117 children whose intelligence quotient was 130 or more as derived from the California Tests of Mental Maturity. These children, deemed "gifted" for purposes of the experiment, were then rated for academic performance by Stanford Achievement Tests, Metropolitan Achievement Tests, and Metropolitan Readiness Tests (administered to kindergarten groups) and for social performance by the California Test of Personality.

To establish extent of acceptance, sociometric data were gathered by application of the Classroom Social Distance Scale.[1] This instrument allows each child to register on a five-point scale his reaction to every other child in the classroom. By assigning numerical values to the scale items, one can arrive at two scores: (1) a "self social distance" score indicating degree of acceptance extended to the group by an individual, and (2) a "group social distance" score denoting degree of acceptance extended to the individual by the group.

The scale was chosen, in part, because it assays both types of acceptance at issue, and also because it relieved the writer of the task of defining or analyzing "acceptance" except in terms of test results; thus, on the strength of the investigations connected with creation of the scale, the writer could logically construe

---

[1] Reprinted in Ruth Cunningham *et al.*, *Understanding Group Behavior of Boys and Girls* (New York: Bureau of Publications, Teachers College, Columbia University, 1951), pp. 401–406.

"friendliness" as a probable criterion of acceptance and, negatively, presume relative "rejection" to be a reasonable indication of relative lack of acceptance. The basis for these assumptions can be better comprehended upon examination of the scale items:

1. Would like to have him as one of my best friends.
2. Would like to have him in my group but not as a close friend.
3. Would like to be with him once in a while but not often or for long at a time.
4. Don't mind his being in our room but I don't want to have anything to do with him.
5. Wish he weren't in our room.[2]

With certain adjustments devised by the writer to accommodate children in kindergarten and the earlier grades, the scale was administered to 888 children, a total comprising the 117 gifted children and a random sample of their classmates.

AFTER the sociometric results were completed, intensive statistical study was undertaken. Academic- and social-performance scores were analyzed by correlation ratio (Eta), by chi square, and by numerical comparison. Eta revealed a possible relation between acceptance extended *by the group* to the individual and academic as well as social performance. Also apparent was a relationship between acceptance extended *to the group* by the individual and the two types of performance.

Thus, academic performance yielded an Eta of .22 (significant at less than the .05 confidence level) in relation to acceptance extended by the group and an Eta of .58 (significant at greater than the .01 confidence level) in relation to acceptance extended to the group. Social performance correlated with acceptance by the group gave an Eta of .37 (significant at just less than the .05 confidence level) and with acceptance extended to the group an Eta of .30 (significant at less than the .05 confidence level).

The most pronounced Eta correlation, then, was between academic performance and acceptance extended to the group. The corrected contingency coefficient (Cc) brought out by chi square analysis likewise showed marked relation in this category, but the relation between social performance and acceptance extended to the group was still more marked. In general, Cc indicated that acceptance extended to the group was more closely related to varieties of performance than was acceptance extended by the group. Relation between total performance and total acceptance—the combined data of acceptance extended by the group and to the group—was found the most emphatic of all.

---

[2] *Ibid.*, p. 406.

Table I shows the relation between two types of performance and two types of acceptance as indicated in statistical treatment by chi square. Corrected contingency coefficient (Cc) may be interpreted as signifying relative correlation between variables.[8] Total performance (academic plus social) and total acceptance (extended by the group and to the group) show the most pronounced relationship.

TABLE I

STATISTICAL RELATION BETWEEN PERFORMANCE AND ACCEPTANCE

Kinds of Relationship	Chi-Square	P	Corrected Contingency (Cc)
(1)	(2)	(3)	(4)
Academic performance and acceptance extended by the group..................	5.78	$.07 < P < .08$	.31
Academic performance and acceptance extended to the group..................	16.09	$P < .01$	.50
Social performance and acceptance extended by the group..................	9.07	$P < .01$	.41
Social performance and acceptance extended to the group..................	20.00	$P < .01$	.57
Total performance and acceptance extended by the group..................	14.76	$.01 < P < .02$	.43
Total performance and acceptance extended to the group..................	22.98	$P < .01$	.51
Total performance and total acceptance..........	41.39	$P < .01$	.62

---

[8] *See* Charles C. Peters and Walter R. Van Voorhis, *Statistical Procedures and Their Mathematical Bases* (New York: McGraw-Hill Book Company, Inc., 1947); and J. P. Guilford, *Fundamental Statistics in Psychology and Education* (New York: McGraw-Hill Book Company, Inc., 1950).

Numerical analysis of the data revealed that more than four out of five children high in total acceptance were achieving within or beyond expectancy, whereas more than three out of five children low in acceptance were achieving below expectancy.

As a test of the findings, case studies were made of twelve children of the gifted sample, six of them highly accepted and six of them highly rejected. Techniques utilized, in addition to application of the scales previously mentioned, included the sociometric interview, the anecdotal record of classroom observations, the school-record digest, open-end questions, and the Van Pit Series-Wishes.

TABLE II

Coincidence of Emotional Need Fulfillment and Acceptance Extended by the Group

Emotional Needs	Number of High Acceptees in Whom Need Is		Number of Low Acceptees in Whom Need Is	
	Met	Unmet	Met	Unmet
(1)	(2)	(3)	(4)	(5)
Belonging	4	2	1	3
Achievement	4	2	2	4
Economic security	2	4	5	1
Freedom from fear	5	1	1	5
Love and affection	5	1	....	6
Freedom from excessive guilt	2	4	1	5
Self-respect	2	4	1	5
Self-understanding	6	....	2	4

The Van Pit Series-Wishes data, summarized in Table II, indicated need fulfillment among the intensively studied six gifted children highly accepted by classmates and the six gifted children rejected by classmates. The low acceptees showed greatest fulfillment in only one category, the need for *economic security*, which was met in five children of this group. The need for *love and affection* remained unfulfilled in all of the low acceptees; and in five cases each, the needs for *freedom from fear*, *freedom from excessive guilt*, and *self-respect* were not met. Among high acceptees, the need for *self-understanding* was fulfilled in every case. Of this group, five children had their needs for *freedom from fear* and *love and affection* met. The table indicates, then, a close relationship between acceptance and satisfaction of needs. If schools make a greater effort to fulfill the needs of gifted children by strengthening acceptance, the writer concludes that, in all probability, the performance of such children will thereby be improved.

The case-study findings paralleled and supported those of the general investigation and, in addition, indicated the effects of the school setting and curriculum on degree of acceptance, and therefore, on quality of performance.

In summary, there appeared to be: (1) no appreciable differences in intelligence between high and low acceptees; (2) an appreciable difference in both test-measured and school-evaluated social performance, favoring the high acceptees; (3) evidence of greater acceptance extended to the group by the high acceptees; (4) no difference between high and low acceptees with regard to the characteristics valued in friends; (5) greater permissiveness and wider variety of channels for learning in the experiences of the high acceptees; (6) more consistent satisfaction with interpersonal relationships among the high, and more consistent dissatisfaction among the low acceptees; (7) considerable differences between high and low acceptees in the fulfillment of their emotional needs, as indicated by the Van Pit Series-Wishes.

Significantly, none of the individually studied gifted children, accepted by classmates or not, appeared concerned with himself as a "big brain." None sought special attention on the grounds of unusual intellectual capacity. None was anxious for more school work or for special teachers or for a rarified climate of any kind. The profuse data of the individual studies also indicated that all of the examined children, accepted by classmates or not, were willing, within emotional limitations, to attempt the work prescribed by the school.

Moreover, all were powerfully concerned with themselves as children, not as special children. They indicated the normal strong desire of children to use their bodies successfully, to build themselves physically into greater beauty and strength. They all wanted to love and be loved. And they wanted, above all, to consider themselves worthy members of a worthy peer group and to communicate this desire to their classmates. It seems reasonable to conclude, then, that those engaged in seeking better opportunities for our gifted children might with profit look to the child first, and only subsequently to his gifts.

[*Continued on page 224*]

EDITORIAL COMMENT

A Year of the Space Age

A YEAR has passed since the launching of Sputnik I shocked the public and the educational profession out of their complacent assumptions that in science, technology, and education America was, as a matter of course, ahead of the rest of the world, and that we had no reason to be seriously concerned about competition from the Soviet Union. As might have been expected, this complacency was followed by near-hysteria in certain quarters. We are now far enough away from the first shock for a relatively calm appraisal of events since the launching. It is appropriate now to ask, what progress has the year brought in making our education more nearly adequate to meet the needs of the age of satellites, missiles, explosive nationalism, and Communist imperialism?

It seems safe to say that, educationally, Sputnik I was a blessing in disguise. More has been accomplished than would have been possible without the stimulus that it provided. There has been substantial progress in meeting the need for schoolhouse construction. The shortage of classrooms is still severe, but it is being reduced. Teachers' salaries, although still shamefully low, have been improved. Much has been done by the National Science Foundation and other organizations and institutions to strengthen the preparation of secondary-school teachers, especially in the areas of mathematics and science. More than three hundred colleges and universities are now participating in a televised college course in Atomic-Age Physics for high-school science teachers, which began operation on October 6. For the first time a course carrying college credit is being given nationally on television. It promises to make an important contribution to the improvement of science teaching.

The most conspicuous item in the year's advance was the enactment of the National Defense Education Act of 1958 (the Hill-Elliott Act). It is an omnibus measure providing, among other things, for loans to needy, able students; increased support for the teaching of science, mathematics, and foreign languages; foreign-language institutes to improve the competence of language teachers; fellowships for students in new or expanded graduate programs; funds to assist the states in establishing and maintaining guidance and counseling programs; and support of research in the development and use of audio-visual aids.[1] This act promises to have far-reaching influence in the fields with which it deals. Almost certainly it could not have been passed without the shock of Sputnik.

THERE has been similar progress in less tangible matters. Many observers report a more serious attitude toward intellectual concerns on the part of students and their parents. The word *egghead* is much less popular than it was; the good student and the intellectual are regarded with growing respect. There is a more critical attitude toward the high-school curriculum and a definite decline in the tendency to regard any subject as valuable as any other if it is equally well taught for the same length of time. Providing superior students with educational experiences that will challenge them and contribute most effectively to their intellectual development is being increasingly emphasized.

These and many other developments that might be mentioned add up to substantial progress in the first year of the space age. They do not, however, justify complacency. Much remains to be done along many lines; we are only well started on the job. The most basic need of all is that of developing and maintaining a sense of urgency on the part of the public, the profession, and the students.

R. H. E.

* * *

The findings of a recent study of high-school students in Ohio enrolled in mathematics and science courses have been summarized in *Ohio Schools*, October, 1958. Significantly, nearly 10 per cent more of today's students are taking such courses than in 1947. Of the total enrollment, 52 per cent are taking a mathematics course and 58.7 per cent, a science course. Enrollment in "watered down" science courses, such as general science, is "negligible," only 1.07 per cent. Seniors are electing the "tough" college preparatory courses like solid geometry, trigonometry, and senior mathematics (18.7 per cent); and physics, anatomy, zoology, and senior science (27.25 per cent).

---

[1] We hope to discuss this act more fully in a future issue of the EDUCATIONAL RESEARCH BULLETIN.

READINGS

Books to Read

Warner, Ruby H. *The Child and His Elementary School World.* Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1957. x+406 pp.

In the opening chapter, "The Self and the Group," the author turns to the pledge of the Mid-century White House Conference on Children and Youth for the five vital needs of all children—"affection, a feeling of belonging, cooperative living, creating, and a sense of achievement" (page 3). These she carefully amplifies in terms of meeting the psychological, biological, sociological, and educational needs as they intermix and shape the development of self and groups. The discussion about meeting educational needs proceeds from a philosophical base and examines in turn the current thinking about school organization, curriculum, achievement, and evaluation, in terms of furthering self-realization and better human relations for children.

Throughout the next eight chapters of the book the author faithfully traces the many "musts" of educational content which become meaningful learning content in programs designed to meet the vital needs of children. This she does through summarizing the potential contribution of an area, such as language arts, to the desirable growth of individuals and groups. Then, by illustrating and analyzing particular situations in terms of procedures and outcomes, the author makes clear the child's rôle as an active agent rather than a passive recipient in his school experiences. In the chapters about "Creative Writing and the Self," "Creative Art and the Self," and "Music and the Self," the emphasis is upon the creative aspects of these areas in the development of personality. Science is presented as "relationship with the environment" and "Arithmetic as Quantitative Thinking." "Health, Physical Education, and Safety" are dealt with in a special chapter. The chapter which makes clear the interrelationships of the various areas is the one on "Social Education for Group Living." The contributions of these areas to problem solving become apparent in the accounts of social studies units for kindergarten through Grade VI.

In the final chapter, "Home, School and Community," five of the many ties among these groups which call for co-operative effort in nurturing young citizens are outlined: the parent-teacher association, home-school visits, resources in the community, field trips, and reporting to parents. According to the author,

> The parent-teacher conference has three important features—planning, conferring, and helping the child through mutual guidance.
>
> . . . .
>
> From information offered by the parent, the teacher may be saved

valuable time in becoming oriented to the child's abilities. One parent helped a beginning teacher understand the attractive personality and limited capabilities of her daughter, a newcomer in the school (page 390).

The format of this book lends itself to easy reference. Illustrations of classroom procedures at various grade levels are followed by the author's analysis of the situation. Brief italicized summaries and selected bibliographies are included after each chapter. These factors, along with the author's talent for interlacing theory and practice, add up to an important contribution to elementary education.

MARY JANE LOOMIS

* * *

The Student Personnel Program

[*Continued from page 204*]

Evaluation may precede and planning for improvement may follow, but research is the process which places future developments on a respectable basis of fact rather than fancy. At the present time two modest projects are under way: (1) an experiment to determine criteria for reinstating dismissed students and (2) a follow-up study of a group of Freshmen who enrolled last fall with scholarships in teacher education.

If one were to evaluate the present student personnel program, he would surely pinpoint numerous questions to be investigated and several procedures to be restructured. Perhaps the present effectiveness of the program is due not so much to what is done, as to how it is done and by whom.

[Vol. XXXVII, No. 8]

Acceptance and Performance

[*Continued from page 220*]

If further investigation can demonstrate that the performance of gifted children is generally affected by considerations of group acceptance, as seemed true of the children in the study reported here, then the school must re-examine those practices which are inimical to acceptance and change them. Such change, aimed at cultivating the child rather than his particular gifts, might well prove less expensive and more effective than the practices now relied upon to help intellectually endowed children attain performance commensurate with their special capacities.

[Vol. XXXVII, No. 8]

BUREAU OF EDNL. & PSYL. RESEARCH
LIBRARY

EDUCATIONAL RESEARCH BULLETIN: ERB

DECEMBER 10, 1958

COLLEGE OF EDUCATION
THE OHIO STATE UNIVERSITY

Vol. XXXVII, No. 9

EDUCATIONAL RESEARCH BULLETIN

(Entered in the United States Patent Office)

R. H. ECKELBERRY . . . . *Editor*
SHIRLEY LIPSON . . . . *Assistant Editor*

PUBLISHED BY THE BUREAU OF EDUCATIONAL RESEARCH AND SERVICE, OHIO STATE UNIVERSITY, FOR THE SCHOOLS OF OHIO. EDITORIAL OFFICE, ROOM 173; BUSINESS OFFICE, ROOM 195, ARPS HALL, COLUMBUS 10, OHIO

ANNUAL SUBSCRIPTION ONE DOLLAR ($1) TO PERSONS LIVING OUTSIDE OHIO

CONTENTS

Bureau of Educational Research and Service Annual Report, 1957–58 225
HERSHEL W. NISONGER, *Bureau of Educational Research and Service*

Staff Publications, 1957–58 247

Index of Volume XXXVII 251

THE EDUCATIONAL RESEARCH BULLETIN is published monthly except during June, July, and August. Entered as Second-Class Matter, February 9, 1922, at the Post Office at Columbus, Ohio, under the Act of August 24, 1912. Accepted for mailing at specified rates of postage provided for in Section 1103, Act of October 3, 1917, authorized February 21, 1922.

Educational Research Bulletin
DECEMBER 10, 1958
Vol. XXXVII, No. 9

Bureau of Educational Research and Service Annual Report, 1957-58

By HERSCHEL W. NISONGER

In many respects this has been a year of transition for the Bureau of Educational Research and Service. On October 1, 1957, the Bureau of Educational Research and the Bureau of Special and Adult Education were merged. Since the objectives and programs were different, many adjustments within the combined staffs of the two Bureaus were necessary. Also the recent reorganization of the Dean's Office of the College of Education has required much planning by members of the Bureau in order to relate their work to and make effective use of the new services provided.

On January 1, 1958, certain functions of the Teaching Aids Laboratory were transferred to the University Office of Special Services. This Laboratory was established as a part of the Bureau in 1935 under the leadership of Norman Woelfel. It consisted of the Film and Projection Service, Chart and Graph Service, Recording Studio, and Curriculum Materials Center. All of these with the exception of the Curriculum Materials Center, which primarily serves teacher education, were University-wide services; staff members performing them were transferred to the central University administration. Although he is no longer on the Bureau budget, Mr. Woelfel still retains membership on the staff and carries on some research through the Bureau.

On July 1, 1958, the *Journal of Higher Education* was transferred to the Ohio State University Press. The *Journal* was started in 1930 and for twenty-eight years was published regularly by the Bureau. It is the only journal devoted exclusively to higher education and has achieved considerable national prestige in this field. Roscoe H. Eckelberry continues to serve temporarily as editor of the *Journal* on a part-time basis.

Several changes have occurred in the personnel of the Bureau. Josephine H. MacLatchy, who for thirty-six years had served in an editorial capacity in the Bureau, retired on June 30.[1] Ruth E. Seeger, who had served the Bureau as Research Librarian for thirty-two years, died in July.[2] On June 30, Harold R. Phelps resigned to accept the position of Director of Special Education at Illinois State Normal University.

Egon Guba joined the Bureau staff on July 1, 1958, as head of the newly established Division of Educational Research. He was formerly at the University of Chicago and more recently at the University of Kansas City. Eunice Lovejoy became Research Librarian on September 8. On October 1, Ellyn Lauber joined the staff in Special Education, and Shirley Lipson, the staff of the Editorial Division.[3] The appointment of Jack L. Landes, assistant director of University Plant Studies, as an associate member of the Bureau staff was approved by the Board of Trustees, effective October 1. While this report covers the period from October 1, 1957, to September 30, 1958, and some of these appointments became effective October 1, 1958, they are included here because negotiations leading to them were completed during this period.

During the year substantial gains in providing more adequate office space for the Bureau staff were made possible by the completion of Arps Hall. The General Office and the School Plant, Reference Library, Student Personnel (formerly located in the Armory), and Educational Research Divisions are now on the first floor of the new west wing of Arps Hall. Other Divisions, such as Administration and Finance, Appointments, Adult Education, Special Education, and Editorial (formerly in the Armory), were moved into more adequate reconditioned office quarters in the old part of Arps Hall. These physical changes have already resulted in more efficient co-ordination among the varied activities of the divisions of the Bureau.

THIS year the Division of Appointments established a record in educational placement, topping that set in 1949. Harold Reynard, chairman of the Division, and Mrs. Hazel Brown, assistant chairman, have been increasingly active in filling the demand for personnel. Requests were received from public and private schools and colleges and universities in Ohio, in other states, and even in foreign countries.

---

[1] "A Colleague Retires," *Educational Research Bulletin*, XXXVII (September 10, 1958), pp. 161–62.

[2] "The Passing of a Colleague," *ibid.* (October 8, 1958), pp. 193–94.

[3] Several of the new appointments mentioned here are discussed more fully in "New Staff Members in the Bureau," *ibid.*, pp. 194–96.

In all, 12,186 sets of candidates' credentials were prepared and sent to prospective employers. The increase of 17 per cent over last year's figure may be explained by the competition for placement within a few crowded fields as well as by the greater number of requests made and candidates available. From February 15 to July 15, a total of 113 employing officials interviewed 1,089 teaching and administrative candidates on campus; many of the candidates recommended were interviewed locally. Table I compares the demand for educational personnel in 1956–57 with that in 1957–58.

TABLE I

DEMANDS FOR EDUCATIONAL PERSONNEL IN THE DIVISION OF APPOINTMENTS FOR THE TWO YEARS OCTOBER 1, 1956, TO SEPTEMBER 30, 1958

	1956–57	1957–58	Per Cent Increase or Decrease
(1)	(2)	(3)	(4)
Elementary-school teachers..............	5,197	5,864	+ 13
Secondary-school and special-field teachers.	8,593	8,742	+ 2
College teachers......................	2,668	2,778	+ 4
Public-school and college administrators...	436	512	+ 17
Totals.........................	16,894	17,896	+ 6

In 1957–58, the active file had 1,456 candidates listed for placement. The total number available for teaching at any level in the public schools increased slightly over the preceding year. Although the College of Education graduated 241 elementary-education majors, about 200 were actually available for teaching positions. The secondary-school and special-field majors graduated from the College of Education totaled 385, but again the number available for placement was less—approximately 250. The increase in demand for elementary teachers was substantial; that for secondary and special-field teachers, slight. Positions in all secondary-school and special-field areas, except biology and speech, were numerous; teachers of English were most in demand. Candidates in biology and speech who possessed the teaching combinations that were being requested could secure positions.

Activity in the placement of college teachers increased by 4 per cent. As in the past, English, critic teaching, psychology, elementary education, and mathematics were the areas of greatest opportunity. Although nearly all college requests specify the doctorate as a requirement for employment, institutions were forced increasingly to employ candidates with only the Master's degree, particularly in the areas in which the shortage of teachers is critical.

The requests for public-school and college administrators totaled 512 in 1957–58, a 17–per cent increase over those of the previous year. Opportunities for secondary-school principals, elementary-school principals, superintendents, and college administrators exceeded the supply of qualified candidates. Each year the doctorate assumes more importance in securing positions.

The Division reported that salaries for beginning teachers ranged from $3,000 to $5,500. The median for beginning elementary-school, secondary-school, and special-field teachers was $4,000, an increase of $175 over the figure of the previous year. Colleges and universities offered salaries ranging from $3,800 upward for instructors with a Master's degree to $10,500 for professors and heads of departments. Salaries for school administrators placed by the office ranged from $4,500 to $15,000.

The professional staff of the Division of Appointments performed numerous activities in addition to compiling significant placement data. A total of 2,103 interviews pertaining to teaching opportunities, qualifications of candidates, salary trends, and related subjects were held with students, faculty members, alumni, and employing officials. The two staff members also appeared before many classes in the College of Education to present information concerning the services and procedures of the Division of Appointments, the supply of and demand for teachers, and salary trends. To obtain more complete and accurate information about the needs of public schools and colleges in Ohio, Mr. Reynard visited many of them. Such information should lead to better placement service. Mrs. Brown is currently working on a follow-up study of 132 beginning teachers in the elementary schools.

THE activities of the Division of Administration and Finance, headed by William R. Flesher, constituted a departure from the usual pattern. Mr. Flesher, with Marie A. Flesher, spent the spring and summer quarters in residence in Oregon to direct a survey for the Oregon State Board of Education, dealing with vocational and technical education in the public schools of the state. Of the seven additional staff members assisting in the survey, three—Robert M. Reese, William B. Logan, and John G. Odgers—were from Ohio. The report of this survey will be published toward the end of 1958.

Three other educational surveys were initiated during the year: an examination of building needs for Preston County, West Virginia; a comprehensive survey of the schools in Muncie, Indiana; and a study of secondary education in Canton, Ohio. The Division also assisted Ralph D. Purdy of Miami University in directing an extensive study of the schools in Butler County, Ohio. Mr. Flesher served as co-ordinator of consultants during the year in two self-surveys: Mount Vernon, Ohio (second year), and Newark, Ohio.

The year-long evaluation of the subject examinations for the United States Armed Forces Institute was completed, and a three-volume report was submitted to USAFI headquarters in Madison, Wisconsin. Mr. Flesher, assisted by Ronald B. Thompson and Marie A. Flesher, co-ordinated the work of approximately forty staff members from Ohio State University and Ohio Wesleyan University. In addition to this major project for USAFI, the Division directed the preparation of four end-of-course tests: advanced accounting, introduction to agriculture, farm management, and jet aircraft engines.

During the year Mr. Flesher, with the assistance of Mrs. Flesher, served as consultant to the First Academic Year Institute, which is part of a national plan for improving the teaching of science and mathematics. The project is sponsored and financed by the National Science Foundation under the direction of John S. Richardson. A 46-page evaluative report regarding this project was prepared by Mr. and Mrs. Flesher. They will also serve as consultants for the Second Academic Year Institute.

Mr. Flesher also completed his consultant duties with the Department of Agricultural Education in their long-range evaluation of the program for preparing county extension agents and teachers of vocational agriculture. The report of this evaluation should be off the press soon.

The history of the first ten years of the National Conference of Professors of Educational Administration, which had been prepared in 1957 with the assistance of President A. L. Knoblauch of Moorhead College, was published in the summer of 1958. This

78-page document was dedicated to Walter D. Cocking, editor of *The School Executive* magazine. Copies of the history were distributed to members attending the annual NCPEA meeting at Kent State University, August, 1958.

The Division co-ordinated the efforts of twelve members of the College of Education in the preparation and evaluation of examinations for assisting in the selection of school principals, superintendents, and other special administrative personnel in the following Ohio school districts: Alliance, Canton, DeGraff, Hamilton, Lorain, Mansfield, Massillon, Napoleon, Newark, and Warren.

Research studies occupied a considerable amount of time. One research report for the Division was completed by Bill M. Root, now Superintendent of Schools at Upper Sandusky, Ohio. His dissertation was a follow-up of the school-building surveys conducted by the Bureau of Educational Research and Service for the past ten years. Another study, done by Kenneth Crim, now Director of Research for the Montgomery County Public Schools, and supervised by the Division staff, is nearing completion. It deals with policies, costs, and other information about public-school insurance in Ohio. Kenneth Crim and Max Evans, assisted by the secretarial staff, also prepared the seven annual financial studies for the public schools of Ohio.

During the past year, Mr. Flesher was appointed to membership on the University Entrance Board. He remained a member of the Planning Committee of the National Conference of Professors of Educational Administration.

THE Division of Educational Research, established in October, 1957, was activated on July 1, 1958, with the arrival of Egon G. Guba to direct it. The Division is expected to serve a variety of functions relating to research technique and methodology both within and without the Bureau, including: (1) establishing a fresh basis for educational research by working out fundamental ideas about education and the educational process; (2) serving as a resource for stimulating, expediting, and implementing research activity throughout the Bureau and the College of Education; (3) helping to develop, and in a limited way, to staff courses in research technique and theory; (4) serving as an administrative agency to which may be assigned new areas of research and personnel which do not fit into the specialties of other Divisions, or which require interdivisional, interdepartmental, or intercollege liaison; and (5) helping to disseminate the results of basic research to practitioners in the public-school field.

In the four months since its activation, the Division has completed a self-study of the Bureau, participated in initial conversations for nine research projects, and taught several courses in research technique and theory. Expansion along these same lines and a further refinement and formulation of the rôle of the Division within the Bureau structure are expected to occupy a considerable amount of time in the coming year.

THE Division of Student Personnel under the direction of Mrs. Marie A. Flesher continued work on evaluative aspects of school surveys. A major project was to assist in the study of vocational-technical education in Oregon.

Other activities were carried on during the two quarters of duty at the University. Mrs. Flesher served as co-director of the subject-examination study for USAFI. The Division tabulated and analyzed the questionnaires used for the project; after the reports of the several evaluators were received, the staff assisted in editing them and in preparing the final report.

Mrs. Flesher also assisted the Division of Administration and Finance in planning and carrying out the evaluation of the First Academic Year Institute. Yung Dug Lee, research assistant in the Division, assumed responsibility for the collection of relevant data and for the calculation of certain statistical measures.

As in the past, the Division has co-operated with school systems in Ohio and in other states. Mrs. Flesher assisted the Division of Administration and Finance in testing for the selection of principals in ten Ohio school districts. She also assumes major responsibility for the questionnaires and evaluation procedures used in school surveys. Also of importance to schools is the bibliography in process on "Reports to Parents"; Mr. Lee is continuing to annotate references.

The Division activities specifically related to the College of Education include the continuation of work on a study of 408 College graduates from the summer of 1954 through the spring of 1955. Data have been collected and partially analyzed. The research assistant is now trying to incorporate as much up-to-date material as possible. In addition, Mrs. Flesher assisted in doctoral examinations and served on College committees.

This has been an eventful year for the Reference Division. Ruth E. Seeger, who had been Research Librarian for thirty-two years, died in July. During the interim between Miss Seeger's death and the appointment of her successor, Mrs. Yvonne Schumann served as acting Research Librarian, assisted by Mrs. Ruth M. Ellis. In September Mrs. Eunice G. Lovejoy joined the Bureau staff as Research Librarian.

Early in July the Reference Library was moved to new quarters on the first floor of the new west wing of Arps Hall. Although the amount of space currently available is about the same as before, it can be used to much better advantage. The Bureau is deeply indebted to Miss Louise Edmondson, librarian of the Education Library, and to the staff of the Main Library of the University for assistance during the transition period. During the summer months, Miss Edmondson worked with the Reference Library staff in an advisory capacity; all new books were classified by the Main Library.

The acquisitions to the Reference Library for the year were as follows:

Books	216
Periodicals	1,413
Bulletins	607
Proceedings and yearbooks	49
Tests	48
Miscellaneous	72
Total	2,405

The collection of college catalogues was transferred to the Education Library during the winter quarter.

Statistics for the year indicate that in spite of the many changes that occurred, "business as usual" prevailed. The total attendance figure for the year was 6,855, which is somewhat below that of the previous year. The decrease can be accounted for in part by the fact that the Education Library, which moved into much larger quarters, could more adequately meet the needs of the students; consequently there was no overflow into the Reference Library. Another factor causing decreased attendance may be the greater distance between the two libraries: formerly they were adjacent to each other and now they are on different floors.

In the past year Miss Seeger prepared fifteen bibliographies, varying in length from 28 to 160 items, with an average of 59 items. Most of these were prepared for members of the Bureau; two, however, were for the Alberta Advisory Committee on Educational Research at the University of Alberta, Canada, and several were for teachers and school administrators in Ohio and other states.

A Bureau library committee has been at work during the year attempting to establish policies for the Reference Library service. It is hoped that these policies will serve as guidelines for Mrs. Lovejoy in the development of these services in the future.

THE School Plant Division, headed by Marion J. Conrad, with Elden B. Sessions and Arthur E. Wohlers as research associates, served the state in a wide variety of field-service projects. The research assistants on the staff were Neil Gibbins, Lee Grimsley, Clyde Plant, Robert Schumann, Clifford Smith, William Stormer, and Hugh Whittington.

Sixty service projects conducted during the year involved approximately one hundred different school districts. These projects may be classified as follows:

Type of project	Active during the year	Completed during the year
Building surveys	25	15
Educational planning	12	6
District reorganization	5	2
Site studies	3	2
Others	3	3
Minor assistance	12	11
Totals	60	39

Co-operation in this work was extended by members of local school staffs; the State Department of Education; members of other divisions in the Bureau; staff members in the departments of education at Ohio State, Miami, and Kent State Universities; and members of the Ohio State University Department of Sociology.

The Division's first county-wide study of district-reorganization and school-plant needs was made possible by the statutory change permitting such studies by county boards of education. This study conducted in Marion County attempted to bring substantial sociological data to bear on the problem. Mr. Bullock and Mr. Jonassen of the Department of Sociology were most helpful on this project. A second county-wide district-reorganization and school building-needs study is already on the schedule for the coming year. Large-scale studies of this kind can be more meaningful than the two- or three-district studies so prevalent recently.

This past year also saw further development of the program of in-service education for noncertified school personnel. In addition to the annual School for Custodians, co-sponsored by the Bureau and the Ohio Association of School Business Officials, state-wide conferences were held for officials in school business and school transportation. Many county and regional conferences and workshops were conducted for school custodians, bus drivers, and cafeteria workers throughout the state.

The School Plant Division has continued to render a considerable amount of service directly to the College and University through various teaching, advisement, and committee activities. The extensive work on College building problems, which went far beyond scheduled time allotments, prevented the staff from making as much progress as they had expected in research and developmental activities during the year. However, through the co-operative efforts of the Committee on Educational Administration and the Kellogg Foundation, the *Elementary School Planning Manual* has been brought closer to publication. The staff assisted with the development of a forthcoming publication by the joint A.I.A.–A.V.A. Committee on Planning Vocational Education Facilities. In addition, staff members are currently developing several projects on a codification scheme for school-plant research and a study of the relationship of school-plant size to educational programs and outcomes.

The Division staff also serves the profession through active participation in state and national groups. In addition to acting as conference speakers or group leaders, staff members served on the Editorial Committee for *Post-Secondary School Guide* and the Research and Publications Committee of the National Council on Schoolhouse Construction; the Committees on Fuels and on University Relationships of the National Association of School Business Officials; and the Nominating Committee of the National Conference of Professors of Educational Administration.

Although the School Plant Division will continue to render services to the public schools of Ohio, to the College of Education and the University, and to the profession at large along lines which have developed over the past thirty years, it is expected that three major shifts in time allotments will take place in the coming year. Increased attention will be given to the development of in-service education through conferences and workshops for noncertified school personnel, to research and developmental activities in the school-plant field, and to departments and agencies of the University outside the College of Education.

MAJOR responsibility for the adult-education program of the College of Education and particularly for the teaching of specialized courses in adult education resides in the Division of Adult Education, directed by Andrew Hendrickson. As senior staff member of the Division, Mr. Hendrickson's duties during the past year, in addition to teaching, included supervision of correspondence courses in English and citizenship for foreign-born persons (enrolling four hundred), a reading course for the Ohio Federation of Women's Clubs (enrolling 101), and the Lumberman's Short Course.

Mr. Hendrickson directed two parent-education workshops, one advanced and one for beginners, enrolling a total of 94 persons. These workshops functioned as training courses for lay leaders of parent-education study groups. He provided consultant services for several public-school systems in Ohio in establishing or improving adult-education programs. He was special consultant for the Columbus Suburban Council of the Parent Teachers Association. The Ohio Federation of Women's Clubs requested his assistance in promoting second-year enrollments in the E.S.O. reading program.

In an editorial capacity, Mr. Hendrickson produced four issues of the *Ohio Adult Observer*; compiled an *Annotated Bibliography of Materials for Teachers of Americanization and Literacy Classes* with Clarence Moore, research assistant; and supervised a study on *Improving Adult Education in Ohio's Public Schools*, which is now in press.

Mr. Hendrickson directed graduate students specializing in the field of adult education and supervised a pilot research project, conducted by Clarence Moore and Tex Miller, designed to discover the educational needs of youth between the ages of eighteen and thirty.

During the year Mr. Hendrickson served on the Executive Committee of the Ohio Association for Adult Education, the Adult Education Council of Columbus, the Committee on Instruction of the Institute of Child Development and Family

Life, the Training Committee of the Columbus Hospital Federation, and the Faculty Committee of the College of Education.

Plans for the coming year include work with the Adult Education Association of the U.S.A. on a project for improving the curriculums of institutions granting professional degrees in adult education.

THE Ohio School of the Air continued broadcasting by radio to the schools of Ohio and made some progress toward resuming television broadcasts. The activities of the Division were directed by Mrs. Margaret Tyler, assisted by Mrs. Marion Renick, script supervisor.

"Hands across the World," a social-science series for the intermediate grades, was added to the schedule of programs regularly broadcast by the Ohio School of the Air. All of the series were planned for use at various grade levels, and teachers' manuals offering suggestions for pre-broadcast as well as post-broadcast activities were prepared for each program of each series with the exception of "Newspaper of the Air."

During the past year, James Rapport, a member of the WOSU production staff, was assigned on a permanent basis to produce Ohio School of the Air programs. Mr. Rapport expedited the use of programs by tape recording on twelve stations other than WOSU. During the current school year, Robert Smith of the WOSU staff holds this position. Wayne Carle has been added to the Ohio School of the Air staff as research assistant for the current year to make a survey of the number of listeners and of the effectiveness of the broadcasts in meeting the needs of teachers. It is believed that Mr. Carle's findings will be very helpful in the planning and production of broadcasts in the future.

Three series of broadcasts were prepared for listening in the primary grades:

> "Play Time"—a games and rhythms series for the smaller children, planned and broadcast by Naomi Allenbaugh of the Department of Physical Education. Its main objective is the personality development of the child. It includes games to help the slow thinker speed up, games to help the timid become brave, and games to teach self-control and creativity. Stations WTDS in Toledo and WAPS in Akron carry the series by tape recording.
>
> "It's Fun to Sing"—a series of music broadcasts for the primary grades, obtained by tape recording from Station WNYE, New York

City Board of Education. Children in the classroom participate by learning songs on their own grade and interest level, and from time to time they learn simple rhythms and games. Two imaginative characters, Twinkle and Didi, entertain each week.

"Story Time"—a series of dramatized book programs for the lower grades in its fifteenth year of continuous broadcast. Plays dramatizing books chosen by Margaret Koste of the Department of Education were produced last year by James Rapport with University students in the casts. "Story Time" received an award at the American Exhibition of Educational Radio and T-V programs. It is carried by Station WAPS in Akron.

Six series of broadcasts were offered for the intermediate grades:

"Uncle Dan from Froggy Hollow Farm"—a natural-science series, received from Station WABE in Atlanta, Georgia. "Uncle Dan" is Mr. Gwynne Burrows, a science teacher in the Atlanta schools, and Froggy Hollow Farm is his farm. Children are taken on imaginary visits to the farm where they meet both familiar and strange creatures and learn about their lives and habits. They also learn to understand and appreciate the world of nature.

"Once upon a Time in Ohio"—a series, sponsored by the Ohio State Museum, that attempts to help children know and appreciate the region in which they live. It deals with both fact and legend. George Jenny, director of education, narrates the programs. The scripts are prepared by the School of the Air and checked for historical accuracy by the Radio and Television Committee of the Museum. Twelve Ohio stations other than WOSU carried the series by tape recording. "Once upon a Time in Ohio" received an award this year from the American Association of State and Local History.

"Hands across the World"—a new social-science series, originating at Station WNYE in New York and received through the N.A.E.B. Tape Network. It dramatizes stories about people in thirty countries. Likenesses, rather than differences, among peoples are stressed; music of various countries is included. Although the broadcasts came on tape recording from the network, the teachers' manual for the series was prepared at Ohio State University by two graduate students who listened to each tape. This manual has been officially adopted by the N.A.E.B. Tape Network.

"Boys and Girls in Bookland"—a series that attempts to show older children that it's fun to read. Sometimes the ending of the story is purposely omitted from the script to make the children want to get the book and read it. Creative writing is encouraged and certain broadcasts are planned for use by the teacher as a stimulus to writing. This series also was carried by Station WAPS in Akron.

"Newspaper of the Air"—an informational series, written by Mrs. Marion Renick and broadcast by Mrs. Renick and Don Quayle of the WOSU staff. By using maps and globes, children can follow the news of the world. They are urged to make bulletin boards upon which important news events are posted, and which they can check against the items that the broadcasters discuss. In addition to significant news, the broadcasts include human-interest stories and bits of humor.

"Music Album"—a series of programs in music appreciation, planned and written by Fred Calland, music director of WOSU. The music is carefully chosen with a view to the enjoyment and understanding of young people; selections from simple folk songs to operatic arias are included. Informal commentary accompanies the recorded music.

THE past year saw a number of important developments affecting the Editorial Division. These included the retirement of Josephine H. MacLatchy, the employment of Shirley Lipson as her successor, the transfer of responsibility for publication of the *Journal of Higher Education* from the Bureau to the Ohio State University Press and the consequent reduction in the staff of the Division, and the moving of the offices to a suite in Arps Hall.

Miss MacLatchy retired on June 30, after more than thirty-six years of service in the Bureau of Educational Research and the new Bureau. On October 1, Miss Lipson, formerly of the University of Pittsburgh, began her work as assistant editor. In August and September, between the retirement of Miss MacLatchy and the arrival of Miss Lipson, Mrs. Nancy Dasher, a former editorial assistant in the Bureau of Educational Research and now a member of the Department of English, assisted with the work of the Division. Members of the editorial staff are highly appreciative of her help; it is difficult to see how the work of the Division could have been done without this aid.

During this past year, the Division underwent other important changes. As a result of the transfer of the *Journal of Higher Education* to the University Press, Mr. Eckelberry has been put on part-time loan to the Press to continue his services as editor; he will divide his time between the Bureau and the Press. The new location of the editorial offices in Arps Hall, where library facilities and other agencies and departments of the College are conveniently located, will make for increased efficiency of operation in the Division.

The major modification in the publication program is the result of the new organization of the Dean's office.[4] The former Publications Committee has been discontinued. John E. Corbally, Jr., Co-ordinator of Field Studies and Services, and Mr. Eckelberry constitute an informal standing committee to deal with specific publication problems as they arise.

The continuing activities of the Division were similar to those of previous years. The Division edited and supervised the publication of nine issues each of the *Journal of Higher Education* and the EDUCATIONAL RESEARCH BULLETIN. Three nonperiodical publications were issued. *Readability: an Appraisal of Research and Application* by Jeanne S. Chall came from the press in 1958; it is Number 34 in the series, "Bureau of Educational Research Monographs," edited by Miss MacLatchy. The sale of this monograph has been so good that a second printing has been ordered. In March, *An Assessment of the Experimentalist Educational Theory* by John L. Childs (the Boyd H. Bode Memorial Lectures, 1957) appeared. In September, *Economics and the Educational Administrator* by Meno Lovenstein was published in co-operation with the Joint Council on Economic Education; it is Number 6 in "The School-Community Development Study Monograph Series." The Editorial Division also had responsibility for a number of brochures, programs, and other minor publications.

In addition to their editorial duties, the professional members of the Division engaged in numerous other activities. Miss MacLatchy continued her research in the teaching of reading and arithmetic. It is to be hoped that, being relieved from routine duties, she can make still more rapid progress with this work.

Mr. Eckelberry again served as a member of the teaching staff of the Ohio Conservation Laboratory and carried on a variety of other activities in the conservation-education field. He served as a member of the steering committee for the meeting of the East Central States Conservation Education Conference, which was held at Lake Hope State Park, Zaleski, Ohio, on October

---

[4] For discussion *see* Donald P. Cottrell, "Administrative Reorganization in a Dean's Office," *Educational Research Bulletin*, XXXVI (October 9, 1957), pp. 217–22; and "Administrative Changes in the College of Education," *ibid.*, pp. 235–37.

27–29, 1957. He was general chairman of the Annual Work Conference and Reunion of the Ohio Conservation Laboratory, which was held at Camp Muskingum on May 2–4. He was a member of the task force which prepared a Conservation Concepts Chart for the elementary schools of Ohio, under the auspices of the Ohio Forestry Association, the Natural Resources Institute of the University, and the State Department of Education. Following the publication of the chart, members of the task force plan the preparation of a teachers' handbook to be used in conjunction with it. Mr. Eckelberry continued to serve as a member of the Conservation Education Advisory Committee of the State Department of Education and the Curriculum Committee of the University's Natural Resources Institute.

Notwithstanding the transfer of the *Journal of Higher Education*, the coming year promises to be a heavy one for the Editorial Division. Four major nonperiodical publications are in prospect. The history of the College of Education by H. G. Good; the Bode Memorial Lectures for 1958; and a monograph tentatively entitled "Social Status and Leadership: the Case of the School Executive" by Melvin Seeman now await publication. A fourth major publication will be the proceedings of a conference on fine-arts education, to be held by the School of Fine and Applied Arts during the winter quarter.

Preliminary discussions have been held dealing with the development of a more systematic exchange of publications in this country, the establishment of an exchange program with the National Pedagogical Academy of the Soviet Union, and a more effective sale of publications. In addition, it is hoped that personnel of the Division can develop a practicum in professional and scholarly writing for the benefit of graduate students and junior staff members.

THE twenty-eighth annual Institute for Education by Radio-Television was directed by I. Keith Tyler of the Bureau staff. The Institute, an annual international conference for the exchange of techniques and experiences in educational broadcasting, attracts professional broadcasters, educators, and civic leaders. An outstanding feature of the conference is the American Exhibition of Educational Radio and Television Programs, which is in its twenty-second year.

This year's conference was held in Columbus, May 12-15. Although the number of television entries increased from 253 in 1957 to 308 in 1958, radio entries decreased from 415 last year to 394 this year. This continuing increase in the number of television entries represents both the growing availability of kinescope recording equipment and the greater use of television for educational purposes.

The theme of the 1958 conference was "Broadcasting: First Aid in the Educational Crisis." Chief emphasis was placed on the potentialities of instructional television—defining its rôle, outlining its adequacies, and examining the controversies involved. A series of clinics gave participants an opportunity to investigate the latest developments in their own fields.

THE Curriculum Division under the direction of Edgar Dale developed significant new materials. In carrying out its major projects, the Division strengthened the co-operative relationship established with the Columbus public schools.

Duane Reed, a research assistant in the Bureau and a resource teacher in the Columbus schools, did considerable work with the mathematics curriculum. He constructed a broad outline for course content in mathematics classes. In addition, a booklet on introductory algebra was prepared as a four-week unit for use with eighth-grade students. This textbook was designed to create a favorable attitude toward algebra before the student has to decide whether to elect ninth-grade algebra. A subsequent evaluation has shown a highly favorable reception by the pupils and a greater-than-normal gain in arithmetic skills. To help seventh-grade students who had not mastered common fractions earlier, four teaching tests were developed. For pupils in grades three, four, five, and six, lists of expected competencies were keyed to the adopted text, and tests were prepared to check the child's skills.

During the past year, the Division continued vocabulary studies which will be extended to the twelfth grade. When the studies are completed, about twenty-one thousand words in sampled communities throughout the United States will have been tested. Meanwhile techniques of vocabulary development, which have been found useful to Columbus teachers and others, are being collected for inclusion within a manual.

The Division's activities were enhanced by a Payne Fund grant which provided for fellowships for foreign students and for the exchange of materials dealing with communication. Under this grant three research assistantships were awarded. Aklilu Habte, who has just returned to Ethiopia where he will be employed by the Ministry of Education, completed a dissertation on the teaching of critical thinking in secondary schools of the United States. C. Sreedhara Warrier, who has returned to India for United States government work, did his Master's thesis on "The Use of Motion Pictures for International Understanding." Rofail Dimian from Egypt is studying the use of audio-visual materials in the teaching of English to complete his Master's degree. In addition, correspondence, publications, film-strips, and other communications materials are being exchanged with more than fifty communication specialists abroad. This interchange is invaluable in keeping specialists in the United States and abroad informed of current developments.

The Division's *News Letter*, now in its twenty-fourth year, has had a twofold aim: first, to report significant news about teaching developments in the audio-visual field throughout the world; and second, to help teachers become sensitive to the need for teaching students to be discriminating in the fields of broadcasting and publishing. In short, the *News Letter* has attempted to cultivate the critical reader, listener, and viewer. During the past year, the monthly printing of the *News Letter* was increased from eighteen thousand to twenty thousand copies. The cost of printing and mailing was paid for through the Payne Fund of New York City.

IN THE field of audio-visual materials, a number of major projects were completed during the past year by Catharine M. Williams. The Laura Zirbes Recordings Project, which includes 49 tape recordings of selected oral presentations on teaching and learning, was concluded with the addition of 27 tapes and a 19-page annotated listing. The tapes are available to schools as a nonprofit service sponsored by the Teaching Aids Laboratory.

Miss Williams is a member of the Instructional Materials Committee, Department of Audio-Visual Education, National Education Association. She was a major contributor to a forthcoming publication of the Department. Her work included an evaluation of all flat picture material commercially produced and of selected materials produced by private groups for educational use; the preparation of an annotated listing and a subject index of the pictorial materials which meet specific criteria; and the preparation of a directory of publishers of pictorial materials. She developed and prepared the materials for a filmstrip Study Pictures Aid Learning; and she completed the manuscript for a booklet *The Feltboard: an Aid to the Teaching of Arithmetic.*

A plan for workshops designed to help in-service teachers develop a creative approach to the teaching of arithmetic in the elementary school was completed and will be put into operation as soon as funds are available. Another major project was the revision of Miss Williams' booklet *Sources of Teaching Materials.* Still in process are a filmstrip and manual of a University-School field trip and a filmstrip explaining the use of the overhead projector. During the year Miss Williams advised six graduate students enrolled for audio-visual credit.

THE Teaching Aids Laboratory, directed by Norman Woelfel, functioned as a Division of the Bureau only until January 1, 1958. The Curriculum Materials Center, formerly a part of the Laboratory, still remains in the Bureau under the direction of Hazel Gibbony.

Constant efforts have been made to increase the services of the Center through changes and additions in equipment. The collections of charts, maps, and exhibits have been sorted, and indexes to these materials have been revised. The acquisition of additional bookcases and cupboards has improved the library arrangement and storage facilities. Routine additions to the filmstrip and recording collections continue, and work on the card catalogue for the filmstrips is progressing. Significantly, the total number of loans made during the summer quarter of 1958 was one-fourth greater than during the summer quarter of 1957 in spite of the fact that the Center was not open as many hours. In co-operation with the Teaching Aids Laboratory, a number of motion pictures have been made available to student teachers for the first time this fall. Preview facilities have been set up, but film borrowers must use the projection equipment available at the schools where the films are to be shown.

The Center performs an important classroom service also. College classes, the audio-visual in particular, meet for demonstrations and discussions of the use of instructional materials.

Some students in these classes have the opportunity to construct simple teaching materials. In the first term of the summer quarter, Miss Gibbony taught the audio-visual course; in the second term she supervised three students in minor research problems.

A considerable amount of her time was spent in completing a doctoral dissertation on "The Instructional Materials Center in Teacher Education." This included a chapter dealing with the history, organization, and activities of the Center; a questionnaire study on instructional-materials centers at approximately two hundred teacher-education institutions; and a follow-up study of the use of instructional materials by approximately one hundred Ohio State University graduates during their first year of elementary-school teaching.

Mr. Woelfel, as the director of the Teaching Aids Laboratory, completed the research and writing on a new pamphlet entitled "Amateur Filmstrip Production." Mr. Woelfel also assisted Catharine Williams with the Laura Zirbes Recordings Project and with the new filmstrip on the use of pictures in the classroom. During the winter and spring quarters, he taught the course in audio-visual materials.

LEADERSHIP activities of the special-education program in the College are centered in the Division of Special Education, directed by Viola M. Cassidy. Other staff members are Wilda M. Rosebrook, Virginia S. Sanderson, and Loetta L. Hunt. As stated earlier, Harold R. Phelps left the Division at the beginning of the summer quarter. In addition, Jeannette Stanton, on leave of absence from Ohio Wesleyan University, directed a research project as a full-time staff member.

In carrying out their function, members of the staff work with other departments of the College in planning for training specialized personnel, teach courses and conduct research in special education, and advise undergraduate and graduate students majoring in this field. They also offer consultant services to elementary and secondary schools in devising methods of identifying exceptional children and in establishing or improving special-education programs for mentally retarded children. Through co-operative arrangements with the Division of Special Education of the State Department of Education, the staff aided in the development of child-study services, special-class programs for children, and in-service training programs for teachers. Mrs. Hunt, with some assistance from Miss Cassidy, had major responsibility in this area.

Miss Sanderson is supervisor of the four-year special curriculum leading to state certification in speech and hearing therapy for the College. She also directs the College program in speech and hearing proficiency, which requires that all prospective teachers at the undergraduate level meet certain standards of speech and hearing adequacy before graduation. Under this program she teaches seven regularly scheduled courses as well as seminars and special-problems courses; a total of 411 students were enrolled in these during the past academic year.

The Division assumes primary responsibility for the preparation of teachers of mentally retarded children; 153 students were enrolled in this program last year. Undergraduate students in elementary or secondary education may qualify for teaching the mentally retarded by completing a prescribed number of hours of course work in special education. Opportunities for advanced training in this field are available to graduate students. Five courses which fulfill this requirement are taught by Miss Cassidy, Miss Rosebrook, and Mrs. Hunt. In addition, seminars and special-problems courses are offered. A workshop for teachers of slow-learning adolescents was conducted during the summer session.

Miss Rosebrook has major responsibility for the program offered in remedial education, which involves class lectures and work in a practicum with children in the Columbus area who are experiencing various types of problems in learning to read. Forty-nine college students and as many children participated in this program.

Instruction in meeting the needs of children with poor vision was offered by Mrs. Hunt. One course was designed for persons concerned with the problems of such children who are enrolled in regular classrooms. Each quarter Mrs. Hunt offers a non-credit course in Braille transcription. During the past year, Mr. Phelps, in co-operation with the Department of Psychology, taught courses dealing with the training program for school psychologists.

Other service activities in the Division are extensive. A seminar offered in the autumn quarter of 1958 to help establish communication between the schools and agencies in the community concerned with school-age children resulted from Miss Rosebrook's membership on the Education Committee of the Franklin County Mental Hygiene Association. Miss Sanderson's service activities are numerous because of the need to provide opportunities for therapists in training to secure firsthand experiences with all kinds of speech disorders and hearing impairments. She has conducted speech surveys in several school systems.

Two major research projects have continued in the Division throughout the year. The first, "An Investigation of Factors Involved in the Educational Placement of Mentally Retarded Children," has been directed this past year by Miss Stanton. This project was made possible through a grant of $35,000 from the United States Office of Education, Department of Health, Education and Welfare. Members of the staff visited 36 cities in Ohio and evaluated a total of 571 pupils. Of this number, 194 participated in the study and underwent a four-hour battery of psychological tests. Statistical analysis of data and preliminary writing of the report will be completed this year.

The second, a longitudinal study of children who entered the Worthington Public Schools in September, 1946, and were graduated in June, 1958, directed by Miss Rosebrook, was completed in June. Factors studied were visual maturation in relation to academic achievement. Data are being evaluated through a grant made by the Institute of Research in Vision. With a grant of $1,000 from the United Cerebral Palsy Association of Columbus, Miss Rosebrook has been instrumental in organizing a pilot project to locate children in the Columbus schools who test within average or above-average limits, and who have suffered some injury to the nervous system. Additional funds will be sought to study more adequately the problems of identification, evaluation, and education. In addition, Miss Rosebrook has completed three years of service as editor of the psychological section of the *American Journal of Mental Deficiency*.

IN ADDITION to administering the work of the Bureau, the Director has been supervising a National Research and Service Project on "Technical Planning in Mental Retardation," sponsored by the American Association on Mental Deficiency. Headquarters of this Project are at the Columbus State School.

The Project is now well into its third year, having begun operation April 1, 1956, on a grant of $233,000 for a three-year period. The staff consists of six full-time and four part-time persons. More than a dozen distinct activities and studies dealing with mental retardation are currently under way. Examples of these are the bi-monthly publication of abstracts in the *American Journal of Mental Deficiency*, a study of the kind of training clinical psychologists should have for work in this area, the development of a manual on nomenclature and classification, the development of a guide on state and local planning to meet the needs of the mentally deficient, and a study of principles and standards in research methodology and design.

During the past year in addition to general supervision of the Project, Mr. Nisonger has completed two studies, one on the publication policies and practices of the American Association on Mental Deficiency and another on its central-office and executive-leadership functions. Another study currently under way explores each state's legal provisions for mental retardation.

[Vol. XXXVII, No. 9]

Staff Publications

1957–58

DALE, EDGAR

Articles in the *News Letter*: "Let Us Rise Up and Build," October, 1957; "A Capacity for Self-Deception," November, 1957; "Writing for Nearly Everybody," December, 1957; "Voices of America," January, 1958; "A Sense of Responsibility," February, 1958; "The Development of International Understanding," March, 1958; "How to Improve Your Vocabulary," April, 1958; "Our Common Needs," May, 1958.

"Audio-Visual Materials in Educational Work with Adults," *Fundamental and Adult Education*, IX ([October] 1957), pp. 168–73.

"Impact of New Media on the Secondary School Curriculum—U.S.A.," *The Secondary School Curriculum: Year Book of Education 1958*. Yonkers-on-Hudson, New York: World Book Company, 1958, pp. 304–17.

"And That's a Fact!" *Read Magazine*, VII (April 1, 1958), Sec. I, pp. 1–4.

"How to Know More Wonderful Words," *Good Housekeeping*, 146 (March, 1958), pp. 117, 234.

ECKELBERRY, R. H.

Editorials in the *Educational Research Bulletin*: "Administrative Changes in the College of Education," (October 9, 1957), pp. 235–37; "Necessary but Not Sufficient," (January 8, 1958), pp. 22–23; "Civilizing Young Savages," (February 12, 1958), pp. 46–48, 56; "A Part of Our Job," (March 12, 1958), pp. 75–77; "A Highly Promising Project," (May 14, 1958), pp. 134, 140; "A Colleague Retires," (September 10, 1958), pp. 161–62.

Editorials in the *Journal of Higher Education*: "A Notable Program for the Improvement of Teaching," (October, 1957), pp. 397–98; "An Urgent and Difficult Task," (November, 1957), pp. 455–58; "The Fraternity Problem at Amherst Re-examined," (December, 1957), pp. 507–509; "A Time for Greatness," (February, 1958), pp. 105–106; "A Good Program," (March, 1958), pp. 163–66; "The Hiram Study Plan Revised," (April, 1958), pp. 225–27, 234; "A Promising New Beginning," (June, 1958), pp. 343–44.

FLESHER, W. R.

IN COLLABORATION WITH KENNETH CRIM

"Costs per Pupil in Average Daily Membership in Ohio City School Districts from July 1, 1956, to June 30, 1957." 24 pp. (Mimeographed).

"Costs per Pupil in Average Daily Membership in Ohio County School Districts from July 1, 1956, to June 30, 1957." 15 pp. (Mimeographed).

"Costs per Pupil in Average Daily Membership in Ohio Exempted Village School Districts from July 1, 1956, to June 30, 1957." 15 pp. (Mimeographed).

"The Disposition of School Bond Issues and Special School Levies Submitted to the Voters in Ohio School Districts from January 1, 1957, through December 12, 1957." 37 pp. (Mimeographed).

IN COLLABORATION WITH MAX W. EVANS

"Financial and Enrollment Data for Ohio City School Districts, 1958." 20 pp. (Mimeographed).

"Financial and Enrollment Data for Ohio Exempted Village School Districts, 1958." 12 pp. (Mimeographed).

"Financial Proposals Submitted to Ohio Voters by Boards of Education in 1958." 30 pp. (Mimeographed).

IN COLLABORATION WITH RONALD B. THOMPSON AND MARIE A. FLESHER

"A Review of the Subject Examinations of the United States Armed Forces Institute." 1958. 746 pp. (Typewritten).

IN COLLABORATION WITH MARIE A. FLESHER AND YUNG DUG LEE

"The First Academic Year Institute at The Ohio State University, 1957–58: an Evaluation Report." 1958. 46 pp. (Mimeographed).

IN COLLABORATION WITH RALPH D. PURDY AND THE SURVEY STAFF

"A Suggested Plan for School District Organization, Butler County, Ohio." 1958. 157 pp. (Mimeographed).

IN COLLABORATION WITH A. L. KNOBLAUCH

A Decade of Development in Educational Leadership: the First Ten Years of NCPEA, 1947–1956. n.p.: National Conference of Professors of Educational Administration, 1957. 78 pp.

GIBBONY, HAZEL LEE

"The Instructional Materials Center in Teacher Education." 1957. A doctoral dissertation on file in the library of Ohio State University. 269 pp.

"A Study of the Use of Instructional Materials by First-Year Elementary School Teachers," *Research Bulletin of New Jersey School Development Council*, III (September, 1958), pp. 20, 22.

GUBA, EGON G.

"Morale and Satisfaction: a Study in Past-Future Time Perspective," *Administrative Science Quarterly*, III (September, 1958), pp. 195–209.

IN COLLABORATION WITH J. W. GETZELS

"Social Behavior and the Administrative Process," *School Review*, LXV (Winter, 1957), pp. 423–41.

HENDRICKSON, ANDREW

"Adult Education." [1958]. 51 pp. (Mimeographed: Prepared for the Third Edition, *Encyclopedia of Educational Research*).

Handbook for Parent Education Leaders. Rev. ed. Columbus, Ohio: Division of Adult Education, Bureau of Educational Research and Service, 1958. 32 pp.

IN COLLABORATION WITH CLARENCE D. MOORE

Annotated Bibliography of Materials for Teachers of Americanization and Literacy Classes. Columbus, Ohio: Division of Adult Education, Bureau of Educational Research and Service, Ohio State University, 1958. 12 pp.

MACLATCHY, JOSEPHINE H.

Editorials in the *Educational Research Bulletin* (October 9, 1957), p. 237; (March 12, 1958), pp. 77–78.

NISONGER, HERSCHEL W.

"Publication Policies of the American Association on Mental Deficiency." April, 1958. 51 pp. (Mimeographed).

"A Study of Central Office and Executive Leadership Functions of AAMD in Relation to Its Future Needs and Resources." September, 1958. 21 pp. (Mimeographed).

"Annual Reports of Two Bureaus for the Years 1956–57," *Educational Research Bulletin*, XXXVI (December 11, 1597), pp. 273–90.

OHIO SCHOOL OF THE AIR (Margaret Tyler and Marion Renick)

WOSU Program Bulletin: Ohio School of the Air, 1957–1958. XXII, September 15, 1957. 12 pp.

Teachers' manuals for the following radio programs: *Play Time, It's Fun to Sing, Story Time, Uncle Dan from Froggy Hollow Farm, Once upon a Time in Ohio, Hands across the World, Boys and Girls in Bookland, Music Album.* 1957–58.

Scripts for radio series originating with the Ohio School of the Air: 30 each for "Story Time," "Once upon a Time in Ohio," "Boys and Girls in Bookland," "Newspaper of the Air," "Play Time" (written by Naomi Allenbaugh), and "Music Album" (written by Fred F. Calland).

REYNARD, HAROLD

IN COLLABORATION WITH MARGARET VESEY AND HAZEL BROWN

"Teaching Opportunities in 1957," *Educational Research Bulletin*, XXXVII (January 8, 1958), pp. 1–10.

SCHOOL PLANT DIVISION STAFF (M. J. Conrad, A. E. Wohlers, E. B. Sessions, Lee Grimsley, Robert Schumann, Clifford Smith, William Stormer, and Hugh Whittington)

"A Re-study of School Building Needs, Warren City School District, Warren, Ohio." 1958. 59 pp. (Mimeographed).

"A Study of District Organization and School Building Needs in the Local School Districts, Marion County, Ohio." 1958. 106 pp. (Mimeographed).

"A Study of Public School Building Needs of the Avon Lake Local School District, Avon Lake, Lorain County, Ohio." 1957. 60 pp. (Mimeographed).

"A Study of School District Organization and School Building Needs in the Antrim, Eden, Harpster-Little Sandusky, Mt. Zion, and Nevada Local School Districts, Crawford and Wyandot Counties, Ohio." 1958. 50 pp. (Mimeographed).

"A Survey of the School Building Needs of the Cuyahoga Falls City School District, Cuyahoga Falls, Ohio." 1958. 76 pp. (Mimeographed).

"A Survey of the School Building Needs of the Fostoria City School District, Fostoria, Ohio." 1957. 54 pp. (Mimeographed).

"Educators' Specifications for the Proposed New Avon Lake Junior High School, Avon Lake Local School District, Avon Lake, Ohio." 1958. 63 pp. (Mimeographed).

"Public Elementary School Building Needs in Marion City School District, Marion, Ohio." 1958. 61 pp. (Mimeographed).

"Public School Building Needs, Defiance City School District, Defiance, Ohio." 1958. 48 pp. (Mimeographed).

IN COLLABORATION WITH HAROLD SEBOLD

"A Long-range Plan of Site Acquisition for the Heath Village Schools, Heath, Ohio." 1958. 11 pp. (Mimeographed).

IN COLLABORATION WITH HAROLD WALKER

"A Study of School Building Needs in the Canton Local School District." 1958. 52 pp. (Mimeographed).

WILLIAMS, CATHARINE M.

Laura Zirbes Speaks to Teachers. Columbus, Ohio: Teaching Aids Laboratory, Ohio State University, 1957. 19 pp.

Sources of Teaching Materials. Rev. ed. Columbus, Ohio: Bureau of Educational Research and Service, Ohio State University, 1957. 37 pp.

WOELFEL, NORMAN

Filmstrip: The Opaque Projector, 46 frames, color.

"Amateur Filmstrip Production: a Technical Guide for Audio-Visual Centers," Columbus, Ohio: Teaching Aids Laboratory, Ohio State University, 1958. 27 pp. (Teaching Aids Laboratory Pamphlet No. 7).

Educational Research Bulletin

VOLUME XXXVII
JANUARY TO DECEMBER, 1958

THE OHIO STATE UNIVERSITY
COLUMBUS · · · OHIO

R. H. ECKELBERRY, *Editor*
J. MACLATCHY, *Assistant Editor*

PUBLISHED MONTHLY, EXCEPT DURING JUNE, JULY, AND AUGUST,
BY THE BUREAU OF EDUCATIONAL RESEARCH AND SERVICE,
OHIO STATE UNIVERSITY, FOR THE TEACHERS OF OHIO

Index of Volume XXXVII

(R) Book Review

Acceptance and Performance among Gifted Elementary-School Children, Meta F. Williams, 216–20, 224

ALEXANDER, CHESTER, Talent versus Performance, 172–77

American Library Association, Subcommittee of the Editorial Committee, "A Basic Book Collection for High Schools" (R), (Ruth Seeger), 166

ASHBAUGH, E. J., Some Side Lights on Teacher Education, 11–21, 28

Beck, Robert H., editor, *The Three R's Plus: What Today's Schools Are Trying to Do—and Why* (R), (Herbert L. Coon), 50–51

Bennett, Margaret E., and Lewin, Molly, *Getting the Most Out of College* (R), (Christine Y. Conaway), 25

Bernard, Harold W., *Adolescent Development in American Culture* (R), (Herman J. Peters), 27–28

BERTIN, MORTON A., AND KURTZ, ALBERT K., A Reappraisal of Marking Practices, 67–74

Books to Improve College Reading Skill: A Review Essay, John R. Kinzer, 135–36

Borrowman, Merle L., *The Liberal and Technical in Teacher Education: a Historical Survey of American Thought* (R), (Earl W. Anderson), 84

Brown, Charles Harvey, *Scientific Serials: Characteristics and Lists of Most Cited Publications in Mathematics, Physics, Chemistry, Geology, Physiology, Botany, Zoology, and Entomology* (R), (Lewis C. Branscomb), 165–66

BROWN, HAZEL; REYNARD, HAROLD E.; AND VESEY, MARGARET A., Teaching Opportunities in 1957, 1–10

Bruce, William F., and Holden, A. John, Jr., *The Teacher's Personal Development: an Introduction of Self-Awareness and Interpersonal Relations* (R), (Hugh D. Laughlin), 54–55

Bureau of Educational Research and Service Annual Report, 1957–58, Herschel W. Nisonger, 225–47

BURNETT, COLLINS W., The Student Personnel Program in the College of Education, 197–204, 224

Can We Teach the High-School Student to Think? Cynthia A. Schuster, 91–100, 112

Carter, Homer L. J., and McGinnis, Dorothy J., *Effective Reading for College Students* (A Review Essay), (John R. Kinzer), 135–36

Chase, Francis S., *Education Faces New Demands* (R), (Norman Woelfel), 79–80

Cole, Charles C., Jr., *Encouraging Scientific Talent* (R), (John S. Richardson), 137–38

Conflicts between Personal and Social Values: Significance for Public Education, Douglas S. Ward, 125–31

Cook, Lloyd, and Cook, Elaine, *School Problems in Human Relations* (R), (Herman J. Peters), 110–11

Co-ordinating Course in the History and Philosophy of Education, A, Sister M. Theophane, C.C.V.I., 152–57

Cressman, George R., and Benda, Harold W., *Public Education in America: a First Course* (R), (John E. Corbally, Jr.), 137

Dallman, Martha, and Sheridan, Alma, *Better Reading in College* (A Review Essay), (John R. Kinzer), 135–36

Design for a Non-Credit Workshop in Industrial Arts, Robert W. Haws, 131–33, 139–40

Development of Pupil-Growth Criteria in Studies of Teacher Effectiveness, The, Harold E. Mitzel and Cecily F. Gross, 178–87; 205–15

Douglas, Mary Peacock, *The Pupil Assistant in the School Library* (R), (Ruth Seeger), 81

E[CKELBERRY], R. H., Editorial Comment, 22–23; 46–48, 56; 75–77; 134, 140; 161–62, 163; 193–96; 221–22

Eddy, Edward Danforth, Jr., *Colleges for Our Land and Time: the Land-Grant Idea in American Education* (R), (Earl W. Anderson), 49–50
Editorial Comment, 22–23; 46–48, 56; 75–78; 134, 140; 161–62, 163; 193–96; 221–22
EDMUND, NEAL R., AND HEMINK, LYLE, Ways in Which Supervisors Help Student Teachers, 57–60
Evaluating School Objectives, R. Roderick Palmer, 60–66

Finn, James D., *The Audio-Visual Equipment Manual* (R), (Sreedhara Warrier), 166–67
Fraser, John Munro, *Psychology: General, Industrial, Social* (R), (Harold E. Burtt), 26–27
FURNISS, W. TODD, The University, the High Schools, and the Superior Student, 169–71

Gordon, Ira J., *The Teacher as a Guidance Worker* (R), (Herman J. Peters), 80–81
GROSS, CECILY F., AND MITZEL, HAROLD E., The Development of Pupil-Growth Criteria in Studies of Teacher Effectiveness, 178–87; 205–15

Haag, Jessie Helen, *School Health Program* (R), (Delbert Oberteuffer), 167
Halverson, Paul M., editor, *Frontiers of Secondary Education I* (R), (Harold R. Phelps), 81–82
Hansen, Kenneth H., *High School Teaching* (R), (Harold Alberty), 138–39
Harris, Dale B., editor, *The Concept of Development: an Issue in the Study of Human Behavior* (R), (Horace B. English), 104–105
HARRY, SHIZUKO N., Some Trends in Teacher Education, 158–60
HAWS, ROBERT W., Design for a Non-Credit Workshop in Industrial Arts, 131–33, 139–40
HEMINK, LYLE, AND EDMUND, NEAL R., Ways in Which Supervisors Help Student Teachers, 57–60
Henry, Nelson B., editor, *The Integration of Educational Experiences* (A Review Essay), (H. Gordon Hullfish), 141–51
Huggett, Albert J., and Stinnett, T. M., *Professional Problems of Teachers* (R), (Margaret Vesey), 105
HULLFISH, H. GORDON, Integrating the Curriculum: A Review Essay, 141–51

Integrating the Curriculum: A Review Essay, H. Gordon Hullfish, 141–51

Johnny Appleseed: a Pilot Study of a Story-Centered Activity Program, Meta Newman, 188–92

KINZER, JOHN R., Books to Improve College Reading Skill: A Review Essay, 135–36
KLARE, GEORGE R.; SHUFORD, EMIR H.; AND NICHOLS, WILLIAM H., The Relation of Format Organization to Learning, 39–45
KURTZ, ALBERT K., AND BERTIN, MORTON A., A Reappraisal of Marking Practices, 67–74
Kyte, George C., *The Elementary School Teacher at Work* (R), (Mary Jane Loomis), 107–108

Leedy, Paul, *Reading Improvement for Adults* (R), (F. P. Robinson), 24
Letter to the Editor, Cynthia [A.] Schuster, 162–63
Lofquist, Lloyd H., *Vocational Counseling with the Physically Handicapped* (R), (Herschel W. Nisonger), 111
Lost—Students, George F. Wooster and W. Wallace Stover, 85–90

M[ACLATCHY], J. H., Editorial Comment, 77–78
Meigs, Cornelia, *What Makes a College? a History of Bryn Mawr* (R), (Earl W. Anderson), 106–107
Meyer, Adolphe E., *An Educational History of the American People* (R), (George S. Maccia), 105–106
Miel, Alice, and Brogan, Peggy, *More than Social Studies: a View of Social Learning in the Elementary School* (R), (Mary Jane Loomis), 167–68
Miller, Lyle L., *Increasing Reading Efficiency* (A Review Essay), (John R. Kinzer), 135–36
MITZEL, HAROLD E., AND GROSS, CECILY F., The Development of Pupil-Growth Criteria in Studies of Teacher Effectiveness, 178–87; 205–15
Moustakas, Clark E., *The Teacher and the Child: Personal Interaction in the Classroom* (R), (Margaret Willis), 109–10

Newer Concepts of Administrative Leadership, W. Frederick Staub, 101–103, 112
NEWMAN, META, Johnny Appleseed: a Pilot Study of a Story-Centered Activity Program, 188–92
NICHOLS, WILLIAM H.; KLARE, GEORGE R.; AND SHUFORD, EMIR H., The Relation of Format Organization to Learning, 39–45

NISONGER, HERSCHEL W., Bureau of Educational Research and Service Annual Report, 1957–58, 225–47

PALMER, R. RODERICK, Evaluating School Objectives, 60–66
Parker, William Riley, *The National Interest and Foreign Languages* (R), (Edward D. Allen), 83–84
PETERS, FRANK R., Placement Testing in English and Mathematics at Ohio State University, 113–19
Placement Testing in English and Mathematics at Ohio State University, Frank R. Peters, 113–19
Plante, Gerard, *Les Objectifs de l'Enseignement Secondaire dans le Milieu Culturel Français de Belgique* (R), (Edward D. Allen), 25–26

Readings, 24–28, 49–55, 79–84, 104–11, 137–39, 164–68, 223–24
Reappraisal of Marking Practices, A, Albert K. Kurtz and Morton A. Bertin, 67–74
Relation of Format Organization to Learning, The, George R. Klare, Emir H. Shuford, and William H. Nichols, 39–45
REYNARD, HAROLD E.; VESEY, MARGARET A.; AND BROWN, HAZEL, Teaching Opportunities in 1957, 1–10

SCHOWE, BEN M., JR., Some Observations on Sign Language, 120–24
SCHUSTER, CYNTHIA A., Can We Teach the High-School Student to Think? 91–100, 112
SCHUSTER, CYNTHIA [A.], Letter to the Editor, 162–63
Schwartz, Alfred; Tiedeman, Stuart C.; and Wallace, Donald G., *Evaluating Student Progress in the Secondary School* (R), (Paul Klohr), 52
Sears, Jesse B., and Henderson, Adin D., *Cubberley of Stanford: and His Contribution to American Education* (R), (H. G. Good), 108–109
SHUFORD, EMIR H.; KLARE, GEORGE R.; AND NICHOLS, WILLIAM H., The Relation of Format Organization to Learning, 39–45
SHUMSKY, ABRAHAM, Teachers Explore Their Attitudes toward Research, 31–38, 56
Some Observations on Sign Language, Ben M. Schowe, Jr., 120–24
Some Side Lights on Teacher Education, E. J. Ashbaugh, 11–21, 28
Some Trends in Teacher Education, Shizuko N. Harry, 158–60
Staff Publications, 247–50
STAUB, W. FREDERICK, Newer Concepts of Administrative Leadership, 101–103, 112
Stern, George G.; Stein, Morris I.; and Bloom, Benjamin S., *Methods in Personality Assessment: Human Behavior in Complex Social Situations* (R), (Ralph M. Stogdill), 79
STOVER, W. WALLACE, AND WOOSTER, GEORGE F., Lost—Students, 85–90
Student Personnel Program in the College of Education, The, Collins W. Burnett, 197–204, 224

Talent versus Performance, Chester Alexander, 172–77
Teachers Explore Their Attitudes toward Research, Abraham Shumsky, 31–38, 56
Teaching Opportunities in 1957, Harold E. Reynard, Margaret A. Vesey, and Hazel Brown, 1–10
THEOPHANE, SISTER M., C.C.V.I., A Coordinating Course in the History and Philosophy of Education, 152–57
Thut, I. N., *The Story of Education: Philosophical and Historical Foundations* (R), (Bernard Mehl), 164–65

University, the High Schools, and the Superior Student, The, W. Todd Furniss, 169–71

Van den Haag, Ernest, *Education as an Industry* (R), (Robert W. Haws), 53–54
VAN WINKLE, HAROLD, We Recommend More Team Research, 29–30, 55–56
VESEY, MARGARET A.; REYNARD, HAROLD E.; AND BROWN, HAZEL, Teaching Opportunities in 1957, 1–10

WARD, DOUGLAS S., Conflicts between Personal and Social Values: Significance for Public Education, 125–31
Warner, Ruby H., *The Child and His Elementary School World* (R), (Mary Jane Loomis), 223–24
Ways in Which Supervisors Help Student Teachers, Neal R. Edmund and Lyle Hemink, 57–60
We Recommend More Team Research, Harold Van Winkle, 29–30, 55–56
Wiggins, Sam P., *The Student Teacher in Action* (R), (L. O. Andrews), 52–53
WILLIAMS, META F., Acceptance and Performance among Gifted Elementary-School Children, 216–20, 224
WOOSTER, GEORGE F., AND STOVER, W. WALLACE, Lost—Students, 85–90

Yauch, Wilbur A.; Bartels, Martin H.; and Morris, Emmet, *The Beginning Teacher* (R), (Isabel Miller), 82–83

MADE BY THE DISABLED
REHABILITATION - INDIA
CALCUTTA—700 053